

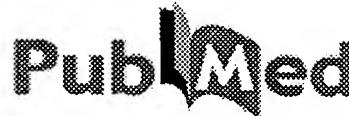
WEST Search History

[Hide Items](#) | [Restore](#) | [Clear](#) | [Cancel](#)

DATE: Tuesday, February 17, 2004

| <u>Hide?</u> | <u>Set Name</u> | <u>Query</u> | <u>Hit Count</u> |
|---|-----------------|--------------------------------------|------------------|
| <i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ</i> | | | |
| <input type="checkbox"/> | L7 | L1 AND L6 | 72 |
| <input type="checkbox"/> | L6 | cyclin | 7104 |
| <input type="checkbox"/> | L5 | L1 AND L4 | 0 |
| <input type="checkbox"/> | L4 | viral cyclin OR cyclin K OR cyclin V | 53 |
| <input type="checkbox"/> | L3 | L1 AND L2 | 63 |
| <input type="checkbox"/> | L2 | 530/300,350.CCLS. | 15382 |
| <input type="checkbox"/> | L1 | (VP22) | 432 |

END OF SEARCH HISTORY



National
Library
of Medicine

Entrez PubMed Nucleotide Protein Genome Structure OMIM PMC Journals Book

Search **PubMed** for **VP22**

Go **Clear**

Limits

Preview/Index

History

Clipboard

Details

About Entrez

[Text Version](#)

Entrez PubMed

[Overview](#)

[Help | FAQ](#)

[Tutorial](#)

[New/Noteworthy](#)

[E-Utilities](#)

PubMed Services

[Journals Database](#)

[MeSH Database](#)

[Single Citation Matcher](#)

[Batch Citation Matcher](#)

[Clinical Queries](#)

[LinkOut](#)

[Cubby](#)

Related Resources

[Order Documents](#)

[NLM Gateway](#)

[TOXNET](#)

[Consumer Health](#)

[Clinical Alerts](#)

[ClinicalTrials.gov](#)

[PubMed Central](#)

[Privacy Policy](#)

Display **Summary** Show: **500** Sort **Send to** **Text** **One page.**

Items 1-105 of 105

1: [Barbe-Tuana FM, Machado DC, Saitovitch D.](#) [Related Articles](#), [Links](#)
Modified location of the major histocompatibility protein Kb by co-delivery with VP22 protein.
Biomol Eng. 2004 Jan;21(1):27-31.
 PMID: 14715317 [PubMed - in process]

2: [Roeder GE, Parish JL, Stern PL, Gaston K.](#) [Related Articles](#), [Links](#)
Herpes Simplex Virus VP22-Human Papillomavirus E2 fusion proteins produced in mammalian or bacterial cells enter mammalian cells and induce apoptotic cell death.
Biotechnol Appl Biochem. 2004 Jan 7 [Epub ahead of print]
 PMID: 14709162 [PubMed - as supplied by publisher]

3: [Zavaglia D, Normand N, Brewis N, O'Hare P, Favrot MC, Coll JL.](#) [Related Articles](#), [Links](#)
VP22-mediated and light-activated delivery of an anti-c-raf1 antisense oligonucleotide improves its activity after intratumoral injection in nude mice.
Mol Ther. 2003 Nov;8(5):840-5.
 PMID: 14599818 [PubMed - indexed for MEDLINE]

4: [Stroh C, Held J, Samraj AK, Schulze-Osthoff K.](#) [Related Articles](#), [Links](#)
Specific inhibition of transcription factor NF- κ B through intracellular protein delivery of I κ Balpha by the Herpes virus protein VP22.
Oncogene. 2003 Aug 14;22(34):5367-73.
 PMID: 12917639 [PubMed - indexed for MEDLINE]

5: [van Leeuwen H, Okuwaki M, Hong R, Chakravarti D, Nagata K, O'Hare P.](#) [Related Articles](#), [Links](#)
Herpes simplex virus type 1 tegument protein VP22 interacts with TAF-I proteins and inhibits nucleosome assembly but not regulation of histone acetylation by INHAT.
J Gen Virol. 2003 Sep;84(Pt 9):2501-10.
 PMID: 12917472 [PubMed - indexed for MEDLINE]

6: [Kong BH, Wang WX, Liu CS, Ma DX, Qu X.](#) [Related Articles](#), [Links](#)
[Tegument viral protein 22 enhanced cell-killing effect of the herpes simplex virus thymidine kinase/ganciclovir system on ovarian cancer in vivo]
Zhonghua Fu Chan Ke Za Zhi. 2003 Apr;38(4):195-8. Chinese.
 PMID: 12885362 [PubMed - in process]

7: [Rutjes SA, Bosma PJ, Rohn JL, Noteborn MH, Wesseling JG.](#) [Related Articles](#), [Links](#)
Induction of insolubility by herpes simplex virus VP22 precludes intercellular trafficking of N-terminal Apoptin-VP22 fusion proteins.
J Mol Med. 2003 Sep;81(9):558-65. Epub 2003 Jul 16.
 PMID: 12879152 [PubMed - in process]

8: Lundberg M, Wikstrom S, Johansson M. [Related Articles](#), [Links](#)
 Cell surface adherence and endocytosis of protein transduction domains. *Mol Ther.* 2003 Jul;8(1):143-50.
 PMID: 12842437 [PubMed - in process]

9: Kong B, Wang W, Liu C, Song L, Ma D, Qu X, Jiang J, Yang X, Zhang Y, Wang B, Wei MQ, Yang Q. [Related Articles](#), [Links](#)
 Efficacy of lentivirus-mediated and MUC1 antibody-targeted VP22-TK/GCV suicide gene therapy for ovarian cancer. *In Vivo.* 2003 Mar-Apr;17(2):153-6.
 PMID: 12792977 [PubMed - indexed for MEDLINE]

10: Namiki S, Tomida T, Tanabe M, Iino M, Hirose K. [Related Articles](#), [Links](#)
 Intracellular delivery of glutathione S-transferase into mammalian cells. *Biochem Biophys Res Commun.* 2003 Jun 6;305(3):592-7.
 PMID: 12763035 [PubMed - indexed for MEDLINE]

11: Kretz A, Wybranietz WA, Hermening S, Lauer UM, Isenmann S. [Related Articles](#), [Links](#)
 HSV-1 VP22 augments adenoviral gene transfer to CNS neurons in the retina and striatum in vivo. *Mol Ther.* 2003 May;7(5 Pt 1):659-69.
 PMID: 12718909 [PubMed - indexed for MEDLINE]

12: Boenick L, Chu K, Pauls R, Tams C, Kruse ML, Kurdow R, Schniewind B, Bohle A, Kremer B, Kalthoff H. [Related Articles](#), [Links](#)
 Efficient dose-dependent and time-dependent protein transduction of pancreatic carcinoma cells in vitro and in vivo using purified VP22-EGFP fusion protein. *J Mol Med.* 2003 Mar;81(3):205-13. Epub 2003 Mar 18.
 PMID: 12682729 [PubMed - in process]

13: Brignati MJ, Loomis JS, Wills JW, Courtney RJ. [Related Articles](#), [Links](#)
 Membrane association of VP22, a herpes simplex virus type 1 tegument protein. *J Virol.* 2003 Apr;77(8):4888-98.
 PMID: 12663795 [PubMed - indexed for MEDLINE]

14: Weitzman MD. [Related Articles](#), [Links](#)
 VP22 flips the switch on cell death. *Mol Ther.* 2003 Feb;7(2):146-7. No abstract available.
 PMID: 12638542 [PubMed - indexed for MEDLINE]

15: Walters JN, Sexton GL, McCaffery JM, Desai P. [Related Articles](#), [Links](#)
 Mutation of single hydrophobic residue I27, L35, F39, L58, L65, L67, or L71 in the N terminus of VP5 abolishes interaction with the scaffold protein and prevents closure of herpes simplex virus type 1 capsid shells. *J Virol.* 2003 Apr;77(7):4043-59.
 PMID: 12634364 [PubMed - indexed for MEDLINE]

16: Brewis ND, Phelan A, Normand N, Choolun E, O'Hare P. [Related Articles](#), [Links](#)
 Particle assembly incorporating a VP22-BH3 fusion protein, facilitating intracellular delivery, regulated release, and apoptosis. *Mol Ther.* 2003 Feb;7(2):262-70.
 PMID: 12597915 [PubMed - indexed for MEDLINE]

17: Zavaglia D, Favrot MC, Eymen B, Tenaud C, Coll JL. [Related Articles](#), [Links](#)
 Intercellular trafficking and enhanced in vivo antitumour activity of a non-virally delivered P27-VP22 fusion protein.

Gene Ther. 2003 Feb;10(4):314-25.
PMID: 12595890 [PubMed - indexed for MEDLINE]

18: [Roy I, Holle L, Song W, Holle E, Wagner T, Yu X.](#) [Related Articles](#), [Links](#)

Efficient translocation and apoptosis induction by adenovirus encoded VP22-p53 fusion protein in human tumor cells in vitro.
Anticancer Res. 2002 Nov-Dec;22(6A):3185-9.
PMID: 12530063 [PubMed - indexed for MEDLINE]

19: [Lyman MG, Demmin GL, Banfield BW.](#) [Related Articles](#), [Links](#)

The attenuated pseudorabies virus strain Bartha fails to package the tegument proteins Us3 and VP22.
J Virol. 2003 Jan;77(2):1403-14.
PMID: 12502856 [PubMed - indexed for MEDLINE]

20: [Cashman SM, Sadowski SL, Morris DJ, Frederick J, Kumar-Singh R.](#) [Related Articles](#), [Links](#)

Intercellular trafficking of adenovirus-delivered HSV VP22 from the retinal pigment epithelium to the photoreceptors--implications for gene therapy.
Mol Ther. 2002 Dec;6(6):813-23.
PMID: 12498777 [PubMed - indexed for MEDLINE]

21: [Kong B, Wang W, Liu C, Ma D, Qu X, Jiang J, Yang X, Zhang Y, Jiang S.](#) [Related Articles](#), [Links](#)

[Anti-tumor effect of lentivirus-mediated MUC1 antibody-targeted gene therapy with VP22-TK system on MUC1(+) human ovarian cancer transplanted intraperitoneally in nude mice]
Zhonghua Yi Xue Za Zhi. 2002 Sep 10;82(17):1207-10. Chinese.
PMID: 12475412 [PubMed - indexed for MEDLINE]

22: [Sherman MP, Schubert U, Williams SA, de Noronha CM, Kreisberg JF, Henklein P, Greene WC.](#) [Related Articles](#), [Links](#)

HIV-1 Vpr displays natural protein-transducing properties: implications for viral pathogenesis.
Virology. 2002 Oct 10;302(1):95-105.
PMID: 12429519 [PubMed - indexed for MEDLINE]

23: [Ye D, Xu D, Singer AJ, Juliano RL.](#) [Related Articles](#), [Links](#)

Evaluation of strategies for the intracellular delivery of proteins.
Pharm Res. 2002 Sep;19(9):1302-9.
PMID: 12403066 [PubMed - indexed for MEDLINE]

24: [Hutchinson I, Whiteley A, Browne H, Elliott G.](#) [Related Articles](#), [Links](#)

Sequential localization of two herpes simplex virus tegument proteins to punctate nuclear dots adjacent to ICP0 domains.
J Virol. 2002 Oct;76(20):10365-73.
PMID: 12239313 [PubMed - indexed for MEDLINE]

25: [Miranda-Saksena M, Boadle RA, Armati P, Cunningham AL.](#) [Related Articles](#), [Links](#)

In rat dorsal root ganglion neurons, herpes simplex virus type 1 tegument forms in the cytoplasm of the cell body.
J Virol. 2002 Oct;76(19):9934-51.
PMID: 12208970 [PubMed - indexed for MEDLINE]

26: [Qian C, Sangro B, Prieto J.](#) [Related Articles](#), [Links](#)

New strategies to enhance gene therapy efficiency.
Gastroenterology. 2002 Aug;123(2):639-42. No abstract available.
PMID: 12145817 [PubMed - indexed for MEDLINE]

27: [Zender L](#), [Kock R](#), [Eckhard M](#), [Frericks B](#), [Gosling T](#), [Gebhardt T](#). Related Articles, Links [Drobek S](#), [Galanski M](#), [Kuhnel F](#), [Manns M](#), [Kubicka S](#)

Gene therapy by intrahepatic and intratumoral trafficking of p53-VP22 induces regression of liver tumors. *Gastroenterology*. 2002 Aug;123(2):608-18. PMID: 12145813 [PubMed - indexed for MEDLINE]

28: [Fuchs W](#), [Klupp BG](#), [Granzow H](#), [Hengartner C](#), [Brack A](#), [Mundt A](#), [Enquist LW](#), [Mettenleiter TC](#). Related Articles, Links

Physical interaction between envelope glycoproteins E and M of pseudorabies virus and the major tegument protein UL49. *J Virol*. 2002 Aug;76(16):8208-17. PMID: 12134026 [PubMed - indexed for MEDLINE]

29: [Sciortino MT](#), [Taddeo B](#), [Poon AP](#), [Mastino A](#), [Roizman B](#). Related Articles, Links

Of the three tegument proteins that package mRNA in herpes simplex virions, one (VP22) transports the mRNA to uninfected cells for expression prior to viral infection. *Proc Natl Acad Sci U S A*. 2002 Jun 11;99(12):8318-23. PMID: 12060774 [PubMed - indexed for MEDLINE]

30: [Zender L](#), [Kuhnel F](#), [Kock R](#), [Manns M](#), [Kubicka S](#). Related Articles, Links

VP22-mediated intercellular transport of p53 in hepatoma cells in vitro and in vivo. *Cancer Gene Ther*. 2002 Jun;9(6):489-96. PMID: 12032659 [PubMed - indexed for MEDLINE]

31: [Morris SJ](#), [Smith H](#), [Sweet C](#). Related Articles, Links

Exploitation of the Herpes simplex virus translocating protein VP22 to carry influenza virus proteins into cells for studies of apoptosis: direct confirmation that neuraminidase induces apoptosis and indications that other proteins may have a role. *Arch Virol*. 2002 May;147(5):961-79. PMID: 12021867 [PubMed - indexed for MEDLINE]

32: [Martin A](#), [O'Hare P](#), [McLaughlan J](#), [Elliott G](#). Related Articles, Links

Herpes simplex virus tegument protein VP22 contains overlapping domains for cytoplasmic localization, microtubule interaction, and chromatin binding. *J Virol*. 2002 May;76(10):4961-70. PMID: 11967313 [PubMed - indexed for MEDLINE]

33: [Wybranietz WA](#), [Gross CD](#), [Phelan A](#), [O'Hare P](#), [Spiegel M](#), [Gracpler F](#), [Bitzer M](#), [Stahler P](#), [Gregor M](#), [Lauer UM](#). Related Articles, Links

Enhanced suicide gene effect by adenoviral transduction of a VP22-cytosine deaminase (CD) fusion gene. *Gene Ther*. 2001 Nov;8(21):1654-64. PMID: 11895004 [PubMed - indexed for MEDLINE]

34: [Michel N](#), [Osen W](#), [Gissmann L](#), [Schumacher TN](#), [Zentgraf H](#), [Muller M](#). Related Articles, Links

Enhanced immunogenicity of HPV 16 E7 fusion proteins in DNA vaccination. *Virology*. 2002 Mar 1;294(1):47-59. PMID: 11886264 [PubMed - indexed for MEDLINE]

35: [van Leeuwen H](#), [Elliott G](#), [O'Hare P](#). Related Articles, Links

Evidence of a role for nonmuscle myosin II in herpes simplex virus type 1

 egress.
J Virol. 2002 Apr;76(7):3471-81.
PMID: 11884571 [PubMed - indexed for MEDLINE]

36: [Diefenbach RJ, Miranda-Saksena M, Diefenbach E, Holland DJ, Boadle RA, Armati PJ, Cunningham AL.](#) [Related Articles](#), [Links](#)

 Herpes simplex virus tegument protein US11 interacts with conventional kinesin heavy chain.
J Virol. 2002 Apr;76(7):3282-91.
PMID: 11884553 [PubMed - indexed for MEDLINE]

37: [O'Donnell LA, Clemmer JA, Czymmek K, Schmidt CJ.](#) [Related Articles](#), [Links](#)

 Marek's disease virus VP22: subcellular localization and characterization of carboxyl terminal deletion Mutations.
Virology. 2002 Jan 20;292(2):235-40.
PMID: 11878926 [PubMed - indexed for MEDLINE]

38: [Soden J, Stevens A, Ray DW.](#) [Related Articles](#), [Links](#)

 Genetic engineering of the glucocorticoid receptor by fusion with the herpes viral protein VP22 causes selective loss of transactivation.
J Endocrinol. 2002 Mar;172(3):615-25.
PMID: 11874710 [PubMed - indexed for MEDLINE]

39: [Cheng WF, Hung CF, Hsu KF, Chai CY, He L, Polo JM, Slater LA, Ling M, Wu TC.](#) [Related Articles](#), [Links](#)

 Cancer immunotherapy using Sindbis virus replicon particles encoding a VP22-antigen fusion.
Hum Gene Ther. 2002 Mar 1;13(4):553-68.
PMID: 11874633 [PubMed - indexed for MEDLINE]

40: [Hung CF, He L, Juang J, Lin TJ, Ling M, Wu TC.](#) [Related Articles](#), [Links](#)

 Improving DNA vaccine potency by linking Marek's disease virus type 1 VP22 to an antigen.
J Virol. 2002 Mar;76(6):2676-82.
PMID: 11861834 [PubMed - indexed for MEDLINE]

41: [Lundberg M, Johansson M.](#) [Related Articles](#), [Links](#)

 Positively charged DNA-binding proteins cause apparent cell membrane translocation.
Biochem Biophys Res Commun. 2002 Feb 22;291(2):367-71.
PMID: 11846414 [PubMed - indexed for MEDLINE]

42: [Lai Z, Brady RO.](#) [Related Articles](#), [Links](#)

 Gene transfer into the central nervous system *in vivo* using a recombinant lentivirus vector.
J Neurosci Res. 2002 Feb 1;67(3):363-71.
PMID: 11813241 [PubMed - indexed for MEDLINE]

43: [Marples B, Greco O, Joiner MC, Scott SD.](#) [Related Articles](#), [Links](#)

 Molecular approaches to chemo-radiotherapy.
Eur J Cancer. 2002 Jan;38(2):231-9. Review.
PMID: 11803140 [PubMed - indexed for MEDLINE]

44: [Dorange F, Tischer BK, Vautherot JF, Osterrieder N.](#) [Related Articles](#), [Links](#)

 Characterization of Marek's disease virus serotype 1 (MDV-1) deletion mutants that lack UL46 to UL49 genes: MDV-1 UL49, encoding VP22, is indispensable for virus growth.
J Virol. 2002 Feb;76(4):1959-70.

PMID: 11799190 [PubMed - indexed for MEDLINE]

45: [Bennett RP, Dalby B, Guy PM.](#) Related Articles, Links

 Protein delivery using VP22.
Nat Biotechnol. 2002 Jan;20(1):20. No abstract available. Erratum in: Nat Biotechnol 2002 Apr;20(4):338.
PMID: 11753353 [PubMed - indexed for MEDLINE]

46: [del Rio T, Werner HC, Enquist LW.](#) Related Articles, Links

 The pseudorabies virus VP22 homologue (UL49) is dispensable for virus growth in vitro and has no effect on virulence and neuronal spread in rodents.
J Virol. 2002 Jan;76(2):774-82.
PMID: 11752167 [PubMed - indexed for MEDLINE]

47: [Morris MC, Depollier J, Mery J, Heitz F, Divita G.](#) Related Articles, Links

 A peptide carrier for the delivery of biologically active proteins into mammalian cells.
Nat Biotechnol. 2001 Dec;19(12):1173-6.
PMID: 11731788 [PubMed - indexed for MEDLINE]

48: [Derer W, Easwaran HP, Leonhardt H, Cardoso MC.](#) Related Articles, Links

 A novel approach to induce cell cycle reentry in terminally differentiated muscle cells.
FASEB J. 2002 Jan;16(1):132-3. Epub 2001 Nov 29.
PMID: 11729099 [PubMed - indexed for MEDLINE]

49: [Blouin A, Blaho JA.](#) Related Articles, Links

 Assessment of the subcellular localization of the herpes simplex virus structural protein VP22 in the absence of other viral gene products.
Virus Res. 2001 Dec 4;81(1-2):57-68.
PMID: 11682125 [PubMed - indexed for MEDLINE]

50: [Geiss BJ, Tavis JE, Metzger LM, Leib DA, Morrison LA.](#) Related Articles, Links

 Temporal regulation of herpes simplex virus type 2 VP22 expression and phosphorylation.
J Virol. 2001 Nov;75(22):10721-9.
PMID: 11602713 [PubMed - indexed for MEDLINE]

51: [Ren X, Harms JS, Splitter GA.](#) Related Articles, Links

 Tyrosine phosphorylation of bovine herpesvirus 1 tegument protein VP22 correlates with the incorporation of VP22 into virions.
J Virol. 2001 Oct;75(19):9010-7.
PMID: 11533164 [PubMed - indexed for MEDLINE]

52: [Ajnts A, Guven H, Gabrton G, Smith CI, Dilber MS.](#) Related Articles, Links

 Mapping of herpes simplex virus-1 VP22 functional domains for inter- and subcellular protein targeting.
Gene Ther. 2001 Jul;8(14):1051-6.
PMID: 11526452 [PubMed - indexed for MEDLINE]

53: [Wills KN, Atencio JA, Avanzini JB, Neuteboom S, Phelan A, Philopena J, Sutjipto S, Vaillancourt MT, Wen SF, Ralston RO, Johnson DE.](#) Related Articles, Links

 Intratumoral spread and increased efficacy of a p53-VP22 fusion protein expressed by a recombinant adenovirus.
J Virol. 2001 Sep;75(18):8733-41.
PMID: 11507218 [PubMed - indexed for MEDLINE]

54: Kotsakis A, Pomeranz LE, Blouin A, Blaho JA. [Related Articles](#), [Links](#)
 **Microtubule reorganization during herpes simplex virus type 1 infection facilitates the nuclear localization of VP22, a major virion tegument protein.**
J Virol. 2001 Sep;75(18):8697-711.
 PMID: 11507215 [PubMed - indexed for MEDLINE]

55: Ren X, Harms JS, Splitter GA. [Related Articles](#), [Links](#)
 **Bovine herpesvirus 1 tegument protein VP22 interacts with histones, and the carboxyl terminus of VP22 is required for nuclear localization.**
J Virol. 2001 Sep;75(17):8251-8.
 PMID: 11483770 [PubMed - indexed for MEDLINE]

56: Lundberg M, Johansson M. [Related Articles](#), [Links](#)
 **Is VP22 nuclear homing an artifact?**
Nat Biotechnol. 2001 Aug;19(8):713-4. No abstract available.
 PMID: 11479552 [PubMed - indexed for MEDLINE]

57: Oliveira SC, Harms JS, Afonso RR, Splitter GA. [Related Articles](#), [Links](#)
 **A genetic immunization adjuvant system based on BVP22-antigen fusion.**
Hum Gene Ther. 2001 Jul 1;12(10):1353-9.
 PMID: 11440628 [PubMed - indexed for MEDLINE]

58: Ford KG, Souberbielle BE, Darling D, Farzaneh F. [Related Articles](#), [Links](#)
 **Protein transduction: an alternative to genetic intervention?**
Gene Ther. 2001 Jan;8(1):1-4. Review.
 PMID: 11402295 [PubMed - indexed for MEDLINE]

59: Spengler M, Niesen N, Grose C, Ruyechan WT, Hay J. [Related Articles](#), [Links](#)
 **Interactions among structural proteins of varicella zoster virus.**
Arch Virol Suppl. 2001;(17):71-9.
 PMID: 11339553 [PubMed - indexed for MEDLINE]

60: Liu CS, Kong B, Xia HH, Ellem KA, Wei MQ. [Related Articles](#), [Links](#)
 **VP22 enhanced intercellular trafficking of HSV thymidine kinase reduced the level of ganciclovir needed to cause suicide cell death.**
J Gene Med. 2001 Mar-Apr;3(2):145-52.
 PMID: 11318113 [PubMed - indexed for MEDLINE]

61: Hung CF, Cheng WF, Chai CY, Hsu KF, He L, Ling M, Wu TC. [Related Articles](#), [Links](#)
 **Improving vaccine potency through intercellular spreading and enhanced MHC class I presentation of antigen.**
J Immunol. 2001 May 1;166(9):5733-40.
 PMID: 11313416 [PubMed - indexed for MEDLINE]

62: Falnes PO, Wesche J, Olsnes S. [Related Articles](#), [Links](#)
 **Ability of the Tat basic domain and VP22 to mediate cell binding, but not membrane translocation of the diphtheria toxin A-fragment.**
Biochemistry. 2001 Apr 10;40(14):4349-58.
 PMID: 11284691 [PubMed - indexed for MEDLINE]

63: Normand N, van Leeuwen H, O'Hare P. [Related Articles](#), [Links](#)
 **Particle formation by a conserved domain of the herpes simplex virus protein VP22 facilitating protein and nucleic acid delivery.**
J Biol Chem. 2001 May 4;276(18):15042-50. Epub 2001 Jan 18.
 PMID: 11278656 [PubMed - indexed for MEDLINE]

64: Schwartz JJ, Zhang S. [Related Articles](#), [Links](#)
 Peptide-mediated cellular delivery.
Curr Opin Mol Ther. 2000 Apr;2(2):162-7. Review.
 PMID: 11249637 [PubMed - indexed for MEDLINE]

65: Donnelly M, Elliott G. [Related Articles](#), [Links](#)
 Fluorescent tagging of herpes simplex virus tegument protein VP13/14 in virus infection.
J Virol. 2001 Mar;75(6):2575-83.
 PMID: 11222680 [PubMed - indexed for MEDLINE]

66: Rajcani J, Durmanova V. [Related Articles](#), [Links](#)
 Early expression of herpes simplex virus (HSV) proteins and reactivation of latent infection.
Folia Microbiol (Praha). 2000;45(1):7-28. Review.
 PMID: 11200675 [PubMed - indexed for MEDLINE]

67: Cheng WF, Hung CH, Chai CY, Hsu KF, He L, Ling M, Wu TC. [Related Articles](#), [Links](#)
 Enhancement of sindbis virus self-replicating RNA vaccine potency by linkage of herpes simplex virus type 1 VP22 protein to antigen.
J Virol. 2001 Mar;75(5):2368-76.
 PMID: 11160740 [PubMed - indexed for MEDLINE]

68: Koelle DM, Schomogyi M, McClurkan C, Reymond SN, Chen HB. [Related Articles](#), [Links](#)
 CD4 T-cell responses to herpes simplex virus type 2 major capsid protein VP5: comparison with responses to tegument and envelope glycoproteins.
J Virol. 2000 Dec;74(23):11422-5.
 PMID: 11070045 [PubMed - indexed for MEDLINE]

69: Lai Z, Han I, Zirzow G, Brady RO, Reiser J. [Related Articles](#), [Links](#)
 Intercellular delivery of a herpes simplex virus VP22 fusion protein from cells infected with lentiviral vectors.
Proc Natl Acad Sci U S A. 2000 Oct 10;97(21):11297-302.
 PMID: 11027330 [PubMed - indexed for MEDLINE]

70: Pomeranz LE, Blaho JA. [Related Articles](#), [Links](#)
 Assembly of infectious Herpes simplex virus type 1 virions in the absence of full-length VP22.
J Virol. 2000 Nov;74(21):10041-54.
 PMID: 11024133 [PubMed - indexed for MEDLINE]

71: Dorange F, El Mehdaoui S, Pichon C, Coursaget P, Vautherot JF. [Related Articles](#), [Links](#)
 Marek's disease virus (MDV) homologues of herpes simplex virus type 1 UL49 (VP22) and UL48 (VP16) genes: high-level expression and characterization of MDV-1 VP22 and VP16.
J Gen Virol. 2000 Sep;81(Pt 9):2219-30.
 PMID: 10950980 [PubMed - indexed for MEDLINE]

72: Kuelzto LA, Normand N, O'Hare P, Middaugh CR. [Related Articles](#), [Links](#)
 Conformational lability of herpesvirus protein VP22.
J Biol Chem. 2000 Oct 27;275(43):33213-21.
 PMID: 10913125 [PubMed - indexed for MEDLINE]

73: Aints A, Dilber MS, Smith CI. [Related Articles](#), [Links](#)
 Intercellular spread of GFP-VP22.
J Gene Med. 1999 Jul-Aug;1(4):275-9.

PMID: 10738560 [PubMed - indexed for MEDLINE]

74: [Wybranietz WA, Prinz F, Spiegel M, Schenk A, Bitzer M, Gregor M, Lauer UM.](#) [Related Articles](#), [Links](#)

 Quantification of VP22-GFP spread by direct fluorescence in 15 commonly used cell lines.

J Gene Med. 1999 Jul-Aug;1(4):265-74.

PMID: 10738559 [PubMed - indexed for MEDLINE]

75: [Harms JS, Ren X, Oliveira SC, Splitter GA.](#) [Related Articles](#), [Links](#)

 Distinctions between bovine herpesvirus 1 and herpes simplex virus type 1 VP22 tegument protein subcellular associations.

J Virol. 2000 Apr;74(7):3301-12.

PMID: 10708447 [PubMed - indexed for MEDLINE]

76: [Elliott G, O'Hare P.](#) [Related Articles](#), [Links](#)

 Cytoplasm-to-nucleus translocation of a herpesvirus tegument protein during cell division.

J Virol. 2000 Mar;74(5):2131-41.

PMID: 10666242 [PubMed - indexed for MEDLINE]

77: [Brewis N, Phelan A, Webb J, Drew J, Elliott G, O'Hare P.](#) [Related Articles](#), [Links](#)

 Evaluation of VP22 spread in tissue culture.

J Virol. 2000 Jan;74(2):1051-6.

PMID: 10623773 [PubMed - indexed for MEDLINE]

78: [Derer W, Easwaran HP, Knopf CW, Leonhardt H, Cardoso MC.](#) [Related Articles](#), [Links](#)

 Direct protein transfer to terminally differentiated muscle cells.

J Mol Med. 1999 Aug;77(8):609-13.

PMID: 10543392 [PubMed - indexed for MEDLINE]

79: [Luft FC.](#) [Related Articles](#), [Links](#)

 Can VP22 resurrect gene therapy?

J Mol Med. 1999 Aug;77(8):575-6. No abstract available.

PMID: 10543389 [PubMed - indexed for MEDLINE]

80: [Pomeranz LE, Blaho JA.](#) [Related Articles](#), [Links](#)

 Modified VP22 localizes to the cell nucleus during synchronized herpes simplex virus type 1 infection.

J Virol. 1999 Aug;73(8):6769-81.

PMID: 10400775 [PubMed - indexed for MEDLINE]

81: [Elliott G, O'Reilly D, O'Hare P.](#) [Related Articles](#), [Links](#)

 Identification of phosphorylation sites within the herpes simplex virus tegument protein VP22.

J Virol. 1999 Jul;73(7):6203-6.

PMID: 10364384 [PubMed - indexed for MEDLINE]

82: [Dilber MS, Phelan A, Aints A, Mohamed AJ, Elliott G, Smith CI, O'Hare P.](#) [Related Articles](#), [Links](#)

 Intercellular delivery of thymidine kinase prodrug activating enzyme by the herpes simplex virus protein, VP22.

Gene Ther. 1999 Jan;6(1):12-21.

PMID: 10341871 [PubMed - indexed for MEDLINE]

83: [Elliott G, O'Hare P.](#) [Related Articles](#), [Links](#)

 Intercellular trafficking of VP22-GFP fusion proteins.

Gene Ther. 1999 Jan;6(1):149-51.

PMID: 10341888 [PubMed - indexed for MEDLINE]

84: [Murphy AL, Murphy SJ.](#) Related Articles, Links
 Catch VP22: the hitch-hiker's ride to gene therapy?
Gene Ther. 1999 Jan;6(1):4-5. No abstract available.
 PMID: 10341869 [PubMed - indexed for MEDLINE]

85: [Elliott G, O'Hare P.](#) Related Articles, Links
 Live-cell analysis of a green fluorescent protein-tagged herpes simplex virus infection.
J Virol. 1999 May;73(5):4110-9.
 PMID: 10196307 [PubMed - indexed for MEDLINE]

86: [Fang B, Xu B, Koch P, Roth JA.](#) Related Articles, Links
 Intercellular trafficking of VP22-GFP fusion proteins is not observed in cultured mammalian cells.
Gene Ther. 1998 Oct;5(10):1420-4.
 PMID: 9930348 [PubMed - indexed for MEDLINE]

87: [Morrison EE, Stevenson AJ, Wang YF, Meredith DM.](#) Related Articles, Links
 Differences in the intracellular localization and fate of herpes simplex virus tegument proteins early in the infection of Vero cells.
J Gen Virol. 1998 Oct;79 (Pt 10):2517-28.
 PMID: 9780059 [PubMed - indexed for MEDLINE]

88: [Koelle DM, Frank JM, Johnson ML, Kwok WW.](#) Related Articles, Links
 Recognition of herpes simplex virus type 2 tegument proteins by CD4 T cells infiltrating human genital herpes lesions.
J Virol. 1998 Sep;72(9):7476-83.
 PMID: 9696844 [PubMed - indexed for MEDLINE]

89: [Morrison EE, Wang YF, Meredith DM.](#) Related Articles, Links
 Phosphorylation of structural components promotes dissociation of the herpes simplex virus type 1 tegument.
J Virol. 1998 Sep;72(9):7108-14.
 PMID: 9696804 [PubMed - indexed for MEDLINE]

90: [Elliott G, O'Hare P.](#) Related Articles, Links
 Herpes simplex virus type 1 tegument protein VP22 induces the stabilization and hyperacetylation of microtubules.
J Virol. 1998 Aug;72(8):6448-55.
 PMID: 9658087 [PubMed - indexed for MEDLINE]

91: [Phelan A, Elliott G, O'Hare P.](#) Related Articles, Links
 Intercellular delivery of functional p53 by the herpesvirus protein VP22.
Nat Biotechnol. 1998 May;16(5):440-3.
 PMID: 9592391 [PubMed - indexed for MEDLINE]

92: [Liang X, Chow B, Babiuk LA.](#) Related Articles, Links
 Study of immunogenicity and virulence of bovine herpesvirus 1 mutants deficient in the UL49 homolog, UL49.5 homolog and dUTPase genes in cattle.
Vaccine. 1997 Jul;15(10):1057-64.
 PMID: 9269047 [PubMed - indexed for MEDLINE]

93: [Elliott G, O'Hare P.](#) Related Articles, Links
 Intercellular trafficking and protein delivery by a herpesvirus structural

protein.

Cell. 1997 Jan 24;88(2):223-33.

PMID: 9008163 [PubMed - indexed for MEDLINE]

94: [McLauchlan J.](#)

[Related Articles](#), [Links](#)

 The abundance of the herpes simplex virus type 1 UL37 tegument protein in virus particles is closely controlled.

J Gen Virol. 1997 Jan;78 (Pt 1):189-94.

PMID: 9010303 [PubMed - indexed for MEDLINE]

95: [Elliott G, O'Reilly D, O'Hare P.](#)

[Related Articles](#), [Links](#)

 Phosphorylation of the herpes simplex virus type 1 tegument protein VP22.

Virology. 1996 Dec 1;226(1):140-5.

PMID: 8941333 [PubMed - indexed for MEDLINE]

96: [Leslie J, Rixon FJ, McLauchlan J.](#)

[Related Articles](#), [Links](#)

 Overexpression of the herpes simplex virus type 1 tegument protein VP22 increases its incorporation into virus particles.

Virology. 1996 Jun 1;220(1):60-8.

PMID: 8659129 [PubMed - indexed for MEDLINE]

97: [Elliott G, Mouzakitis G, O'Hare P.](#)

[Related Articles](#), [Links](#)

 VP16 interacts via its activation domain with VP22, a tegument protein of herpes simplex virus, and is relocated to a novel macromolecular assembly in coexpressing cells.

J Virol. 1995 Dec;69(12):7932-41.

PMID: 7494306 [PubMed - indexed for MEDLINE]

98: [Dargan DJ, Patel AH, Subak-Sharpe JH.](#)

[Related Articles](#), [Links](#)

 PREPs: herpes simplex virus type 1-specific particles produced by infected cells when viral DNA replication is blocked.

J Virol. 1995 Aug;69(8):4924-32.

PMID: 7609061 [PubMed - indexed for MEDLINE]

99: [Liang X, Chow B, Li Y, Raggo C, Yeo D, Attah-Poku S, Babiuk LA.](#)

[Related Articles](#), [Links](#)

 Characterization of bovine herpesvirus 1 UL49 homolog gene and product: bovine herpesvirus 1 UL49 homolog is dispensable for virus growth.

J Virol. 1995 Jun;69(6):3863-7.

PMID: 7745736 [PubMed - indexed for MEDLINE]

100: [Koptidesova D, Kopacek J, Zelnik V, Ross NL, Pastorekova S, Pastorek J.](#)

[Related Articles](#), [Links](#)

 Identification and characterization of a cDNA clone derived from the Marek's disease tumour cell line RPL1 encoding a homologue of alpha-transinducing factor (VP16) of HSV-1.

Arch Virol. 1995;140(2):355-62.

PMID: 7710361 [PubMed - indexed for MEDLINE]

101: [Coulter LJ, Moss HW, Lang J, McGeoch DJ.](#)

[Related Articles](#), [Links](#)

 A mutant of herpes simplex virus type 1 in which the UL13 protein kinase gene is disrupted.

J Gen Virol. 1993 Mar;74 (Pt 3):387-95.

PMID: 8383174 [PubMed - indexed for MEDLINE]

102: [Elliott GD, Meredith DM.](#)

[Related Articles](#), [Links](#)

 The herpes simplex virus type 1 tegument protein VP22 is encoded by gene UL49.

J Gen Virol. 1992 Mar;73 (Pt 3):723-6.
PMID: 1312128 [PubMed - indexed for MEDLINE]

103: [Meredith DM, Lindsay JA, Halliburton JW, Whittaker GR.](#) [Related Articles](#), [Links](#)

 Post-translational modification of the tegument proteins (VP13 and VP14) of herpes simplex virus type 1 by glycosylation and phosphorylation.
J Gen Virol. 1991 Nov;72 (Pt 11):2771-5.
PMID: 1658203 [PubMed - indexed for MEDLINE]

104: [Baker TS, Newcomb WW, Booy FP, Brown JC, Steven AC.](#) [Related Articles](#), [Links](#)

 Three-dimensional structures of maturable and abortive capsids of equine herpesvirus 1 from cryoelectron microscopy.
J Virol. 1990 Feb;64(2):563-73.
PMID: 2153224 [PubMed - indexed for MEDLINE]

105: [Knopf KW, Kaerner HC.](#) [Related Articles](#), [Links](#)

 Virus-specific basic phosphoproteins associated with herpes simplex virus type a (HSV-1) particles and the chromatin of HSV-1-infected cells.
J Gen Virol. 1980 Feb;46(2):405-14.
PMID: 6247428 [PubMed - indexed for MEDLINE]

[Display](#) [Summary](#)  Show: [500](#)  [Sort](#)  [Send to](#) [Text](#) 
Items 1-105 of 105 One page.

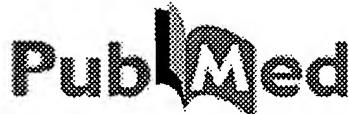
[Write to the Help Desk](#)

[NCBI](#) | [NLM](#) | [NIH](#)

[Department of Health & Human Services](#)

[Freedom of Information Act](#) | [Disclaimer](#)

Jan 29 2004 15:06:34



National
Library
of Medicine

Entrez PubMed Nucleotide Protein Genome Structure OMIM PMC Journals Books

Search for

[Limits](#)

[Preview/Index](#)

[History](#)

[Clipboard](#)

[Details](#)

[About Entrez](#)

[Display](#) [Summary](#) Show:

Items 1-3 of 3

[One page](#).

1: [Zavaglia D, Favrot MC, Eymin B, Tenaud C, Coll JL.](#) [Related Articles](#), [Links](#)

[Intercellular trafficking and enhanced in vivo antitumour activity of a non-virally delivered P27-VP22 fusion protein.](#)

Gene Ther. 2003 Feb;10(4):314-25.

PMID: 12595890 [PubMed - indexed for MEDLINE]

2: [Roy I, Holle L, Song W, Holle E, Wagner T, Yu X.](#) [Related Articles](#), [Links](#)

[Efficient translocation and apoptosis induction by adenovirus encoded VP22-p53 fusion protein in human tumor cells in vitro.](#)

Anticancer Res. 2002 Nov-Dec;22(6A):3185-9.

PMID: 12530063 [PubMed - indexed for MEDLINE]

3: [Wills KN, Atencio JA, Avanzini JB, Neuteboom S, Phelan A, Philopena J, Sutjipto S, Vaillancourt MT, Wen SF, Ralston RO, Johnson DE.](#) [Related Articles](#), [Links](#)

[Intratumoral spread and increased efficacy of a p53-VP22 fusion protein expressed by a recombinant adenovirus.](#)

J Virol. 2001 Sep;75(18):8733-41.

PMID: 11507218 [PubMed - indexed for MEDLINE]

[PubMed Services](#)

[Journals Database](#)

[MeSH Database](#)

[Single Citation Matcher](#)

[Batch Citation Matcher](#)

[Clinical Queries](#)

[LinkOut](#)

[Cubby](#)

[Related Resources](#)

[Order Documents](#)

[NLM Gateway](#)

[TOXNET](#)

[Consumer Health](#)

[Clinical Alerts](#)

[ClinicalTrials.gov](#)

[PubMed Central](#)

[Privacy Policy](#)

[Write to the Help Desk](#)

[NCBI](#) | [NLM](#) | [NIH](#)

[Department of Health & Human Services](#)

[Freedom of Information Act](#) | [Disclaimer](#)

Jan 29 2004 15:06:34

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

***** Welcome to STN International *****
***** STN Columbus *****

FILE 'HOME' ENTERED AT 16:44:24 ON 17 FEB 2004

=> file BIOSCIENCE

FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED

FILE 'ADISCTI' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 Adis Data Information BV

FILE 'ADISINSIGHT' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 Adis Data Information BV

FILE 'ADISNEWS' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 Adis Data Information BV

FILE 'AGRICOLA' ENTERED AT 16:44:33 ON 17 FEB 2004

FILE 'ANABSTR' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (c) 2004 THE ROYAL SOCIETY OF CHEMISTRY (RSC)

FILE 'AQUASCI' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT 2004 FAO (On behalf of the ASFA Advisory Board). All rights reserved.

FILE 'BIOBUSINESS' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 Biological Abstracts, Inc. (BIOSIS)

FILE 'BIOCOPMERCE' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 BioCommerce Data Ltd. Richmond Surrey, United Kingdom. All rights reserved

FILE 'BIOSIS' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 BIOLOGICAL ABSTRACTS INC.(R)

FILE 'BIOTECHABS' ACCESS NOT AUTHORIZED

FILE 'BIOTECHDS' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 THOMSON DERWENT AND INSTITUTE FOR SCIENTIFIC INFORMATION

FILE 'BIOTECHNO' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 Elsevier Science B.V., Amsterdam. All rights reserved.

FILE 'CABA' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 CAB INTERNATIONAL (CABI)

FILE 'CANCERLIT' ENTERED AT 16:44:33 ON 17 FEB 2004

FILE 'CAPLUS' ENTERED AT 16:44:33 ON 17 FEB 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'CEABA-VTB' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (c) 2004 DECHHEMA eV

FILE 'CEN' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 American Chemical Society (ACS)

FILE 'CIN' ENTERED AT 16:44:33 ON 17 FEB 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2004 American Chemical Society (ACS)

FILE 'CONFSCI' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 Cambridge Scientific Abstracts (CSA)

FILE 'CROPB' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 THOMSON DERWENT

FILE 'CROPU' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 THOMSON DERWENT

FILE 'DISSABS' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 ProQuest Information and Learning Company; All Rights Reserved.

FILE 'DDFB' ACCESS NOT AUTHORIZED

FILE 'DDFU' ACCESS NOT AUTHORIZED

FILE 'DGENE' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 THOMSON DERWENT

FILE 'DRUGB' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 THOMSON DERWENT

FILE 'DRUGMONOG2' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 IMSWORLD Publications Ltd

FILE 'IMSDRUGNEWS' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 IMSWORLD Publications Ltd

FILE 'DRUGU' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 THOMSON DERWENT

FILE 'IMSRESEARCH' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 IMSWORLD Publications Ltd

FILE 'EMBAL' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

FILE 'EMBASE' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

FILE 'ESBIOBASE' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 Elsevier Science B.V., Amsterdam. All rights reserved.

FILE 'FEDRIP' ENTERED AT 16:44:33 ON 17 FEB 2004

FILE 'FOMAD' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 Leatherhead Food Research Association

FILE 'FOREGE' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 Leatherhead Food Research Association

FILE 'FROSTI' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 Leatherhead Food Research Association

FILE 'FSTA' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 International Food Information Service

FILE 'GENBANK' ENTERED AT 16:44:33 ON 17 FEB 2004

FILE 'HEALSAFE' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 Cambridge Scientific Abstracts (CSA)

FILE 'IFIPAT' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 IFI CLAIMS(R) Patent Services (IFI)

FILE 'IMSPRODUCT' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 IMSWORLD Publications Ltd

FILE 'JICST-EPLUS' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 Japan Science and Technology Agency (JST)

FILE 'KOSMET' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 International Federation of the Societies of Cosmetics Chemists

FILE 'LIFESCI' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 Cambridge Scientific Abstracts (CSA)

FILE 'MEDICONF' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 FAIRBASE Datenbank GmbH, Hannover, Germany

FILE 'MEDLINE' ENTERED AT 16:44:33 ON 17 FEB 2004

FILE 'NIOSHTIC' ENTERED AT 16:44:33 ON 17 FEB 2004

COPYRIGHT (C) 2004 U.S. Secretary of Commerce on Behalf of the U.S. Government

FILE 'NTIS' ENTERED AT 16:44:33 ON 17 FEB 2004

Compiled and distributed by the NTIS, U.S. Department of Commerce.

It contains copyrighted material.

All rights reserved. (2004)

FILE 'NUTRACEUT' ENTERED AT 16:44:33 ON 17 FEB 2004
Copyright 2004 (c) MARKETLETTER Publications Ltd. All rights reserved.

FILE 'OCEAN' ENTERED AT 16:44:33 ON 17 FEB 2004
COPYRIGHT (C) 2004 Cambridge Scientific Abstracts (CSA)

FILE 'PASCAL' ENTERED AT 16:44:33 ON 17 FEB 2004
Any reproduction or dissemination in part or in full,
by means of any process and on any support whatsoever
is prohibited without the prior written agreement of INIST-CNRS.
COPYRIGHT (C) 2004 INIST-CNRS. All rights reserved.

FILE 'PCTGEN' ENTERED AT 16:44:33 ON 17 FEB 2004
COPYRIGHT (C) 2004 WIPO

FILE 'PHAR' ENTERED AT 16:44:33 ON 17 FEB 2004
COPYRIGHT (C) 2004 PJB Publications Ltd. (PJB)

FILE 'PHARMAML' ENTERED AT 16:44:33 ON 17 FEB 2004
Copyright 2004 (c) MARKETLETTER Publications Ltd. All rights reserved.

FILE 'PHIC' ENTERED AT 16:44:33 ON 17 FEB 2004
COPYRIGHT (C) 2004 PJB Publications Ltd. (PJB)

FILE 'PHIN' ENTERED AT 16:44:33 ON 17 FEB 2004
COPYRIGHT (C) 2004 PJB Publications Ltd. (PJB)

FILE 'PROMT' ENTERED AT 16:44:33 ON 17 FEB 2004
COPYRIGHT (C) 2004 Gale Group. All rights reserved.

FILE 'RDISCLOSURE' ENTERED AT 16:44:33 ON 17 FEB 2004
COPYRIGHT (C) 2004 Kenneth Mason Publications Ltd.

FILE 'SCISEARCH' ENTERED AT 16:44:33 ON 17 FEB 2004
COPYRIGHT 2004 THOMSON ISI

FILE 'SYNTHLINE' ENTERED AT 16:44:33 ON 17 FEB 2004
COPYRIGHT (C) 2004 Prous Science

FILE 'TOXCENTER' ENTERED AT 16:44:33 ON 17 FEB 2004
COPYRIGHT (C) 2004 ACS

FILE 'USPATFULL' ENTERED AT 16:44:33 ON 17 FEB 2004
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 16:44:33 ON 17 FEB 2004
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'VETB' ENTERED AT 16:44:33 ON 17 FEB 2004
COPYRIGHT (C) 2004 THOMSON DERWENT

FILE 'VETU' ENTERED AT 16:44:33 ON 17 FEB 2004
COPYRIGHT (C) 2004 THOMSON DERWENT

FILE 'WPIDS' ENTERED AT 16:44:33 ON 17 FEB 2004
COPYRIGHT (C) 2004 THOMSON DERWENT

FILE 'WPINDEX' ACCESS NOT AUTHORIZED

=> S VP22
57 FILES SEARCHED...
L1 2091 VP22

=> DUP REM L1
DUPLICATE IS NOT AVAILABLE IN 'ADISINSIGHT, ADISNEWS, BIOMMERCE, DGENE,
DRUGMONOG2, IMSRESEARCH, FEDRIP, FOREGE, GENBANK, IMSPRODUCT, KOSMET,
MEDICONF, NUTRACEUT, PCTGEN, PHAR, PHARMAML, RDISCLOSURE, SYNTHLINE'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING IS APPROXIMATELY 54% COMPLETE FOR L1
PROCESSING IS APPROXIMATELY 94% COMPLETE FOR L1
PROCESSING COMPLETED FOR L1
L2 1089 DUP REM L1 (1002 DUPLICATES REMOVED)

=> S SV40 T-antigen OR cyclin

22 FILES SEARCHED...

49 FILES SEARCHED...

L3 214489 SV40 T-ANTIGEN OR CYCLIN

=> S L2 AND L3

32 FILES SEARCHED...

L4 88 L2 AND L3

=> DUP REM L4

DUPLICATE IS NOT AVAILABLE IN 'ADISINSIGHT, ADISNEWS, BIOCOMMERCE, DGENE, DRUGMONOG2, IMSRESEARCH, FEDRIP, FOREGE, GENBANK, IMSPRODUCT, KOSMET, MEDICONF, NUTRACEUT, PCTGEN, PHAR, PHARMAML, RDISCLOSURE, SYNTHLINE'.

ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE

PROCESSING COMPLETED FOR L4

L5 88 DUP REM L4 (0 DUPLICATES REMOVED)

=> D L5 1-88

L5 ANSWER 1 OF 88 USPATFULL on STN

AN 2004:38071 USPATFULL

TI Methods of modulating tubulin deacetylase activity

IN Verdin, Eric M., San Francisco, CA, UNITED STATES

North, Brian J., San Francisco, CA, UNITED STATES

Ulrich, Scott M., Ithaca, NY, UNITED STATES

PI US 2004028607 A1 20040212

AI US 2003-441854 A1 20030519 (10)

PRAI US 2002-382218P 20020520 (60)

DT Utility

FS APPLICATION

LN.CNT 2808

INCL INCLM: 424/001.110

INCLS: 435/019.000

NCL NCLM: 424/001.110

NCLS: 435/019.000

IC [7]

ICM: A61M036-14

ICS: A61K051-00; C12Q001-44

L5 ANSWER 2 OF 88 USPATFULL on STN

AN 2004:30632 USPATFULL

TI Methods and compositions to induce antitumor response

IN LaFace, Drake M., San Diego, CA, UNITED STATES

PI US 2004022769 A1 20040205

AI US 2003-435893 A1 20030512 (10)

RLI Continuation of Ser. No. US 1999-416813, filed on 13 Oct 1999, GRANTED, Pat. No. US 6649158

PRAI US 1998-104370P 19981015 (60)

DT Utility

FS APPLICATION

LN.CNT 1031

INCL INCLM: 424/093.200

INCLS: 435/456.000; 435/235.100; 435/320.100

NCL NCLM: 424/093.200

NCLS: 435/456.000; 435/235.100; 435/320.100

IC [7]

ICM: A61K048-00

ICS: C12N015-861

L5 ANSWER 3 OF 88 USPATFULL on STN

AN 2004:12649 USPATFULL

TI Anti-pathogen treatments

IN Rider, Todd H., Littleton, MA, UNITED STATES

PA Massachusetts Institute of Technology, Cambridge, MA (U.S. corporation)

PI US 2004009167 A1 20040115

AI US 2003-361208 A1 20030207 (10)

PRAI US 2002-355359P 20020207 (60)

US 2002-355022P 20020207 (60)

US 2002-432386P 20021210 (60)

DT Utility

FS APPLICATION

LN.CNT 9654

INCL INCLM: 424/132.100

INCLS: 424/159.100; 424/164.100

NCL NCLM: 424/132.100

NCLS: 424/159.100; 424/164.100

IC [7]

ICM: A61K039-40
ICS: A61K039-42

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 4 OF 88 USPATFULL on STN
AN 2004:2432 USPATFULL
TI Targeted immunogens
IN Uger, Robert Adam, Richmond Hill, CA, UNITED STATES
Salha, Danielle, Toronto, CANADA
Barber, Brian, White Plains, NY, UNITED STATES
Morse, Clarence C., Asbury, NJ, UNITED STATES
Guo, Yong, Freshmeadows, NJ, UNITED STATES
Cheng, Su, Bridgewater, NJ, UNITED STATES
PA Aventis Pasteur, Ltd., Toronto, CANADA (U.S. corporation)
Aventis Pharmaceuticals, Inc., Bridgewater, NJ (U.S. corporation)
PI US 2004002455 A1 20040101
AI US 2003-353678 A1 20030129 (10)
RLI Continuation-in-part of Ser. No. US 2002-219850, filed on 15 Aug 2002,
PENDING
PRAI US 2002-352892P 20020129 (60)
DT Utility
FS APPLICATION
LN.CNT 1498
INCL INCLM: 514/012.000
INCLS: 530/350.000; 435/069.100; 435/320.100; 435/325.000; 536/023.200
NCL NCLM: 514/012.000
NCLS: 530/350.000; 435/069.100; 435/320.100; 435/325.000; 536/023.200
IC [7]
ICM: A61K038-17
ICS: C12P021-02; C12N005-06; C07K014-705; C07H021-04
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 5 OF 88 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:203275 CAPLUS
DN 138:217843
TI Identification of inhibitors of herpesvirus gene expression replication
and pathogenesis, and their antiviral use thereof
IN Schaffer, Priscilla A.; Schang, Luis M.; Jordan, Robert
PA USA
SO U.S. Pat. Appl. Publ., 76 pp., Cont.-in-part of U.S. Ser. No. 951,058.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 4
PATENT NO. KIND DATE APPLICATION NO. DATE
----- -----
PI US 2003049602 A1 20030313 US 2000-905689 20001206
WO 2000006170 A1 20000210 WO 1999-US16252 19990716
W: AU, CA, JP, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
PT, SE
PRAI US 1998-94805P P 19980731
US 1999-131264P P 19990427
US 1999-140926P P 19990624
WO 1999-US16252 A1 19990716
US 2000-656592 A2 20000907
US 2000-951058 A2 20000912

L5 ANSWER 6 OF 88 USPATFULL on STN
AN 2003:335040 USPATFULL
TI Novel methods for the delivery of polynucleotides to cells
IN Monahan, Sean D., Madison, WI, UNITED STATES
Nader, Lisa, Madison, WI, UNITED STATES
Wolff, Jon A., Madison, WI, UNITED STATES
Budker, Vladimir G., Middleton, WI, UNITED STATES
Hagstrom, James E., Middleton, WI, UNITED STATES
PI US 2003235916 A1 20031225
AI US 2003-462138 A1 20030616 (10)
PRAI US 2002-388685P 20020614 (60)
DT Utility
FS APPLICATION
LN.CNT 3331
INCL INCLM: 435/455.000
INCLS: 514/044.000
NCL NCLM: 435/455.000
NCLS: 514/044.000

IC [7]
ICM: A61K048-00
ICS: C12N015-85
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

LS ANSWER 7 OF 88 USPATFULL on STN
AN 2003:330566 USPATFULL
TI Modulation of gene expression using insulator binding proteins
IN Wolfe, Alan P., UNITED STATES
Wolffe, Elizabeth J., UNITED STATES LR
PI US 2003232781 A1 20031218
AI US 2003-446901 A1 20030527 (10)
RLI Continuation of Ser. No. WO 2001-US44654, filed on 28 Nov 2001, PENDING
PRAI US 2000-253678P 20001128 (60)
DT Utility
FS APPLICATION
LN.CNT 2015
INCL INCLM: 514/044.000
INCLS: 424/094.610; 435/455.000
NCL NCLM: 514/044.000
NCLS: 424/094.610; 435/455.000
IC [7]
ICM: A61K038-47
ICS: C12N015-85
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

LS ANSWER 8 OF 88 USPATFULL on STN
AN 2003:325220 USPATFULL
TI Membrane penetrating peptides and uses thereof
IN Guo, Yong, Fresh Meadows, NY, UNITED STATES
Morse, Clarence C., Asbury, NJ, UNITED STATES
Yao, Zhengbin, Sugar Land, TX, UNITED STATES
Keesler, George A., Hillsborough, NJ, UNITED STATES
PI US 2003229202 A1 20031211
AI US 2001-933780 A1 20010821 (9)
PRAI GB 2001-3110 20010702
US 2000-227647P 20000825 (60)
DT Utility
FS APPLICATION
LN.CNT 1771
INCL INCLM: 530/350.000
INCLS: 514/012.000; 435/455.000; 514/044.000
NCL NCLM: 530/350.000
NCLS: 514/012.000; 435/455.000; 514/044.000
IC [7]
ICM: A61K048-00
ICS: A61K038-17; C07K014-475; C12N015-87
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

LS ANSWER 9 OF 88 USPATFULL on STN
AN 2003:312867 USPATFULL
TI Conjugate of biodegradable aliphatic polyester with Tat49-57 peptide or peptide chain containing Tat49-57 peptide and nanoparticle manufactured using the same
IN Park, Ju Young, Yongin-si, KOREA, REPUBLIC OF
Nam, Yoon Sung, Yongin-si, KOREA, REPUBLIC OF
Han, Sang Hoon, Suwon-si, KOREA, REPUBLIC OF
Chang, Ih Seop, Yongin-si, KOREA, REPUBLIC OF
PA PACIFIC CORPORATION, Seoul, KOREA, REPUBLIC OF, 140-777 (non-U.S. corporation)
PI US 2003220474 A1 20031127
AI US 2002-185593 A1 20020628 (10)
PRAI KR 2002-27328 20020517
DT Utility
FS APPLICATION
LN.CNT 787
INCL INCLM: 530/350.000
INCLS: 436/518.000; 436/531.000
NCL NCLM: 530/350.000
NCLS: 436/518.000; 436/531.000
IC [7]
ICM: C07K001-00
ICS: C07K014-00; C07K017-00; G01N033-543; G01N033-545
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

LS ANSWER 10 OF 88 USPATFULL on STN

AN 2003:312659 USPATFULL
TI Reversible modification of membrane interaction
IN Rozema, David B., Madison, WI, UNITED STATES
Wakefield, Darren, Madison, WI, UNITED STATES
Wolff, Jon A., Madison, WI, UNITED STATES
Ekena, Kirk, Madison, WI, UNITED STATES
Hagstrom, James E., Middleton, WI, UNITED STATES
PI US 2003220264 A1 20031127
AI US 2003-444662 A1 20030523 (10)
PRAI US 2002-383298P 20020524 (60)
DT Utility
FS APPLICATION
LN.CNT 1113
INCL INCLM: 514/012.000
INCLS: 530/350.000; 530/406.000
NCL NCLM: 514/012.000
NCLS: 530/350.000; 530/406.000
IC [7]
ICM: A61K038-16
ICS: C07K014-16
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 11 OF 88 USPATFULL on STN
AN 2003:312229 USPATFULL
TI Identification of peptides that facilitate uptake and cytoplasmic and/or nuclear transport of proteins, DNA and viruses
IN Robbins, Paul D., Mt. Lebanon, PA, UNITED STATES
Mi, Zhibao, Pittsburgh, PA, UNITED STATES
Frizzell, Raymond, Pittsburgh, PA, UNITED STATES
Glorioso, Joseph C., Cheswick, PA, UNITED STATES
Gambotto, Andrea, Pittsburgh, PA, UNITED STATES
Mai, Jeffrey C., Pittsburgh, PA, UNITED STATES
PI US 2003219826 A1 20031127
AI US 2003-366493 A1 20030212 (10)
RLI Continuation-in-part of Ser. No. US 2002-75869, filed on 13 Feb 2002,
PENDING Continuation-in-part of Ser. No. US 2000-653182, filed on 31 Aug
2000, PENDING
PRAI US 1999-151980P 19990901 (60)
US 2000-188944P 20000313 (60)
DT Utility
FS APPLICATION
LN.CNT 3437
INCL INCLM: 435/007.100
INCLS: 435/194.000; 435/226.000; 530/328.000
NCL NCLM: 435/007.100
NCLS: 435/194.000; 435/226.000; 530/328.000
IC [7]
ICM: G01N033-53
ICS: C12N009-12; C12N009-64; C07K007-08
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 12 OF 88 USPATFULL on STN
AN 2003:282659 USPATFULL
TI C1k-2 nucleic acids, polypeptides and uses thereof
IN Hekimi, Siegfried, Montreal, CANADA
Benard, Claire, Montreal, CANADA
Jiang, Ning, Montreal, CANADA
Kebir, Hania, Montreal, CANADA
McCright, Brenton, Gaithersburg, MD, UNITED STATES
Lakowski, Bernard, Paris, FRANCE
PI US 2003199002 A1 20031023
AI US 2003-349507 A1 20030122 (10)
RLI Continuation-in-part of Ser. No. US 2003-312187, filed on 9 Apr 2003,
PENDING A 371 of International Ser. No. WO 2001-CA913, filed on 20 Jun
2001, UNKNOWN
PRAI US 2000-213174P 20000622 (60)
US 2000-254932P 20001213 (60)
DT Utility
FS APPLICATION
LN.CNT 6246
INCL INCLM: 435/007.200
INCLS: 435/069.700; 435/193.000; 435/320.100; 435/325.000; 536/023.200
NCL NCLM: 435/007.200
NCLS: 435/069.700; 435/193.000; 435/320.100; 435/325.000; 536/023.200
IC [7]
ICM: G01N033-53

ICS: G01N033-567; C07H021-04; C12P021-04; C12N009-10; C12N005-06
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 13 OF 88 USPATFULL on STN
AN 2003:276702 USPATFULL
TI Phenotypic screen of chimeric proteins
IN Kim, Jin-Soo, Yuseong-gu, KOREA, REPUBLIC OF
Park, Kyung-Soon, Yuseong-gu, KOREA, REPUBLIC OF
Lee, Dong-Ki, Yuseong-gu, KOREA, REPUBLIC OF
Seo, Wongi, Yuseong-gu, KOREA, REPUBLIC OF
Lee, Horim, Chungcheongnam-do, KOREA, REPUBLIC OF
Lee, Seong-IL, Yuseong-gu, KOREA, REPUBLIC OF
Yang, Hyo-Young, Yuseong-gu, KOREA, REPUBLIC OF
Lee, Yangsoon, Yuseong-gu, KOREA, REPUBLIC OF
Jang, Young-Soon, Yuseong-gu, KOREA, REPUBLIC OF
PI US 2003194727 A1 20031016
AI US 2002-314669 A1 20021209 (10)
PRAI US 2001-338441P 20011207 (60)
US 2002-376053P 20020426 (60)
US 2002-400904P 20020802 (60)
US 2002-401089P 20020805 (60)
DT Utility
FS APPLICATION
LN.CNT 5577
INCL INCLM: 435/006.000
INCLS: 435/069.100; 435/320.100; 435/325.000; 435/252.300; 435/007.200;
435/254.200; 435/219.000
NCL NCLM: 435/006.000
NCLS: 435/069.100; 435/320.100; 435/325.000; 435/252.300; 435/007.200;
435/254.200; 435/219.000
IC [7]
ICM: C12Q001-68
ICS: G01N033-53; G01N033-567; C12N001-18; C12P021-02; C12N001-21;
C12N005-06
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 14 OF 88 USPATFULL on STN
AN 2003:257726 USPATFULL
TI Rapid identification of transcriptional regulatory domains
IN Bartsevich, Victor, Albany, CA, UNITED STATES
PI US 2003180777 A1 20030925
AI US 2003-387320 A1 20030311 (10)
PRAI US 2002-365004P 20020312 (60)
DT Utility
FS APPLICATION
LN.CNT 2147
INCL INCLM: 435/006.000
INCLS: 435/007.200; 435/226.000
NCL NCLM: 435/006.000
NCLS: 435/007.200; 435/226.000
IC [7]
ICM: C12Q001-68
ICS: G01N033-53; G01N033-567; C12N009-64
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 15 OF 88 USPATFULL on STN
AN 2003:257662 USPATFULL
TI Cells for drug discovery
IN Case, Casey, San Mateo, CA, UNITED STATES
PI US 2003180713 A1 20030925
AI US 2003-412109 A1 20030410 (10)
RLI Division of Ser. No. US 2001-779233, filed on 8 Feb 2001, PENDING
PRAI US 2000-181117P 20000208 (60)
DT Utility
FS APPLICATION
LN.CNT 3573
INCL INCLM: 435/004.000
INCLS: 435/006.000; 435/007.200
NCL NCLM: 435/004.000
NCLS: 435/006.000; 435/007.200
IC [7]
ICM: C12Q001-00
ICS: C12Q001-68; G01N033-53; G01N033-567
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 16 OF 88 USPATFULL on STN

AN 2003:251004 USPATFULL
TI Cells for drug discovery
IN Case, Casey, San Mateo, CA, UNITED STATES
PI US 2003175790 A1 20030918
AI US 2003-412105 A1 20030410 (10)
RLI Division of Ser. No. US 2001-779233, filed on 8 Feb 2001, PENDING
PRAI US 2000-181117P 20000208 (60)
DT Utility
FS APPLICATION
LN.CNT 3571
INCL INCLM: 435/006.000
INCLS: 435/007.200
NCL NCLM: 435/006.000
NCLS: 435/007.200
IC [7]
ICM: C12Q001-68
ICS: G01N033-53; G01N033-567
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 17 OF 88 USPATFULL on STN
AN 2003:243807 USPATFULL
TI SYN3 compositions and methods
IN Ihnat, Peter M., Brooklyn, NY, UNITED STATES
Witchey-Lakshmanan, Leonore C., Piscataway, NJ, UNITED STATES
Sandweiss, Varda, Forest Hills, NY, UNITED STATES
Ugwu, Sydney O., Chicago, IL, UNITED STATES
PA Schering-Plough Corporation, Kenilworth, NJ, 07033-0530 (U.S.
corporation)
PI US 2003170216 A1 20030911
AI US 2002-329043 A1 20021220 (10)
PRAI US 2001-342329P 20011220 (60)
DT Utility
FS APPLICATION
LN.CNT 1157
INCL INCLM: 424/093.210
INCLS: 514/044.000
NCL NCLM: 424/093.210
NCLS: 514/044.000
IC [7]
ICM: A61K048-00
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 18 OF 88 USPATFULL on STN
AN 2003:237984 USPATFULL
TI Regulation of endogenous gene expression in cells using zinc finger
proteins
IN Case, Casey C., San Mateo, CA, UNITED STATES
Cox, George N., III, Louisville, CO, UNITED STATES
Eisenberg, Stephen P., Boulder, CO, UNITED STATES
Liu, Qiang, Foster City, CA, UNITED STATES
Rebar, Edward J., El Cerrito, CA, UNITED STATES
PA Sangamo Biosciences, Inc., Richmond, CA, UNITED STATES, 94804 (U.S.
corporation)
PI US 2003166141 A1 20030904
AI US 2002-245415 A1 20020916 (10)
RLI Continuation-in-part of Ser. No. US 1999-229007, filed on 12 Jan 1999,
GRANTED, Pat. No. US 6453242 Continuation-in-part of Ser. No. US
1999-229037, filed on 12 Jan 1999, GRANTED, Pat. No. US 6534261
Continuation-in-part of Ser. No. US 2000-731558, filed on 6 Dec 2000,
GRANTED, Pat. No. US 6503717 Continuation-in-part of Ser. No. US
1999-456100, filed on 6 Dec 1999, ABANDONED
DT Utility
FS APPLICATION
LN.CNT 4131
INCL INCLM: 435/069.100
INCLS: 435/320.100; 435/325.000; 435/366.000; 435/456.000; 702/019.000
NCL NCLM: 435/069.100
NCLS: 435/320.100; 435/325.000; 435/366.000; 435/456.000; 702/019.000
IC [7]
ICM: C12P021-02
ICS: C12N005-06; G06F019-00; G01N033-48; G01N033-50; C12N005-08
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 19 OF 88 USPATFULL on STN
AN 2003:219655 USPATFULL
TI Cell cycle progression proteins

IN Deak, Peter, Cambridge, UNITED KINGDOM
Glover, David Moore, Sandy, UNITED KINGDOM
Midgley, Carol, Milton Keynes, UNITED KINGDOM
PA Cyclacel Limited, Dundee, UNITED KINGDOM, GB (non-U.S. corporation)
PI US 2003152945 A1 20030814
AI US 2002-161051 A1 20020530 (10)
RLI Continuation-in-part of Ser. No. WO 2001-GB1297, filed on 23 Mar 2001,
UNKNOWN
PRAI GB 2000-7268 20000324
DT Utility
FS APPLICATION
LN.CNT 2533
INCL INCLM: 435/006.000
INCLS: 435/069.100; 435/183.000; 435/320.100; 435/325.000; 536/023.200
NCL NCLM: 435/006.000
NCLS: 435/069.100; 435/183.000; 435/320.100; 435/325.000; 536/023.200
IC [7]
ICM: C12Q001-68
ICS: C07H021-04; C12N009-00; C12P021-02; C12N005-06
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 20 OF 88 USPATFULL on STN
AN 2003:214330 USPATFULL
TI MAGE-A1 peptides for treating or preventing cancer
IN Emtage, Peter, Boston, MA, UNITED STATES
Karunakaran, Liza, Toronto, CANADA
Pedyczak, Arthur, Toronto, CANADA
Barber, Brian H., Hawthorne, NY, UNITED STATES
PI US 2003148973 A1 20030807
AI US 2002-150797 A1 20020517 (10)
PRAI US 2001-292590P 20010523 (60)
DT Utility
FS APPLICATION
LN.CNT 1761
INCL INCLM: 514/044.000
INCLS: 424/093.200; 424/185.100; 536/023.100
NCL NCLM: 514/044.000
NCLS: 424/093.200; 424/185.100; 536/023.100
IC [7]
ICM: C07H021-04
ICS: A61K048-00; A61K039-00
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 21 OF 88 USPATFULL on STN
AN 2003:213626 USPATFULL
TI Methods and compositions using genetic package display
IN Larocca, David, Encinitas, CA, UNITED STATES
Kassner, Paul, San Mateo, CA, UNITED STATES
Baird, Andrew, London, UNITED KINGDOM
Burg, Michael Alan, San Diego, CA, UNITED STATES
PA Selective Genetics, Inc., San Diego, CA, UNITED STATES, 92121 (U.S.
corporation)
PI US 2003148263 A1 20030807
AI US 2002-151204 A1 20020517 (10)
RLI Continuation-in-part of Ser. No. US 2001-866073, filed on 24 May 2001,
PENDING Continuation-in-part of Ser. No. WO 1999-US25361, filed on 29
Oct 1999, PENDING Continuation-in-part of Ser. No. US 1999-258689, filed
on 26 Feb 1999, GRANTED, Pat. No. US 6451527 Continuation-in-part of
Ser. No. US 1998-193445, filed on 17 Nov 1998, PENDING
Continuation-in-part of Ser. No. US 1998-195379, filed on 17 Nov 1998,
GRANTED, Pat. No. US 6472146
PRAI US 1997-57067P 19970829 (60)
DT Utility
FS APPLICATION
LN.CNT 4740
INCL INCLM: 435/005.000
INCLS: 435/006.000; 435/320.100
NCL NCLM: 435/005.000
NCLS: 435/006.000; 435/320.100
IC [7]
ICM: C12Q001-70
ICS: C12Q001-68; C12N015-74
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 22 OF 88 USPATFULL on STN
AN 2003:166063 USPATFULL

TI Immunogenic targets for melanoma
IN Emtage, Peter, Sunnyvale, CA, UNITED STATES
Karunakaran, Liza, Thornhill, CANADA
Pedyczak, Artur, Pickering, CANADA
Barber, Brian, White Plains, NY, UNITED STATES
PA Aventis Pasteur, Ltd. (U.S. corporation)
PI US 2003113919 A1 20030619
AI US 2002-219850 A1 20020815 (10)
PRAI US 2001-313438P 20010817 (60)
US 2001-313572P 20010817 (60)
US 2001-313573P 20010817 (60)
US 2001-313574P 20010817 (60)

DT Utility
FS APPLICATION

LN.CNT 2347

INCL INCLM: 435/456.000
INCLS: 435/320.100; 435/235.100

NCL NCLM: 435/456.000
NCLS: 435/320.100; 435/235.100

IC [7]
ICM: C12N015-86
ICS: C12N007-00

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 23 OF 88 USPATFULL on STN

AN 2003:165439 USPATFULL
TI Compositions and methods for delivery of an agent using attenuated
Salmonella containing phage

IN Bermudes, David G., Wallingford, CT, UNITED STATES
King, Ivan C., North Haven, CT, UNITED STATES
Clairmont, Caroline A., Cheshire, CT, UNITED STATES

PA Vion Pharmaceuticals, Inc. (U.S. corporation)

PI US 2003113293 A1 20030619

AI US 2002-76117 A1 20020213 (10)

RLI Continuation of Ser. No. US 2000-645418, filed on 24 Aug 2000, ABANDONED
PRAI US 1999-150928P 19990826 (60)

DT Utility
FS APPLICATION

LN.CNT 2322

INCL INCLM: 424/093.200
INCLS: 435/252.300

NCL NCLM: 424/093.200
NCLS: 435/252.300

IC [7]
ICM: A61K048-00
ICS: C12N001-21

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 24 OF 88 USPATFULL on STN

AN 2003:159267 USPATFULL
TI Modified zinc finger binding proteins

IN Rebar, Edward, El Cerrito, CA, UNITED STATES
Jamieson, Andrew, San Francisco, CA, UNITED STATES
PA Sangamo BioSciences, Richmond, CA (U.S. corporation)

PI US 2003108880 A1 20030612

AI US 2002-55711 A1 20020122 (10)

PRAI US 2001-263445P 20010122 (60)
US 2001-290716P 20010511 (60)

DT Utility
FS APPLICATION

LN.CNT 2403

INCL INCLM: 435/006.000
INCLS: 435/069.100; 435/226.000; 435/325.000; 435/320.100; 536/023.200

NCL NCLM: 435/006.000
NCLS: 435/069.100; 435/226.000; 435/325.000; 435/320.100; 536/023.200

IC [7]
ICM: C12Q001-68
ICS: C07H021-04; C12N009-64; C12P021-02; C12N005-06

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 25 OF 88 USPATFULL on STN

AN 2003:146199 USPATFULL

TI Combination therapy involving drugs which target cellular proteins and
drugs which target pathogen-encoded proteins

IN Schaffer, Priscilla A., Boston, MA, UNITED STATES
Schang, Luis M., Edmonton, CANADA

PI US 2003099944 A1 20030529
AI US 2000-905687 A1 20001206 (9)
RLI Continuation-in-part of Ser. No. US 2000-951058, filed on 12 Sep 2000,
PENDING Continuation-in-part of Ser. No. US 2000-656592, filed on 7 Sep
2000, PENDING Continuation of Ser. No. WO 1999-US16252, filed on 16 Jul
1999, PENDING
PRAI US 1998-94805P 19980731 (60)
US 1999-131264P 19990427 (60)
US 1999-140926P 19990624 (60)
DT Utility
FS APPLICATION
LN.CNT 4046
INCL INCLM: 435/006.000
INCLS: 514/263.380; 514/263.400; 435/005.000; 424/204.100
NCL NCLM: 435/006.000
NCLS: 514/263.380; 514/263.400; 435/005.000; 424/204.100
IC [7]
ICM: A61K031-522
ICS: A61K031-52; C12Q001-70; C12Q001-68; A61K039-12; A01N043-90
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 26 OF 88 USPATFULL on STN
AN 2003:127602 USPATFULL
TI Regulation of endogenous gene expression in cells using zinc finger
proteins
IN Cox, George Norbert, III, Louisville, CO, UNITED STATES
Case, Casey Christopher, San Mateo, CA, UNITED STATES
Eisenberg, Stephen P., Boulder, CO, UNITED STATES
Jarvis, Eric Edward, Boulder, CO, UNITED STATES
Spratt, Sharon Kaye, Vacaville, CA, UNITED STATES
PA Sangamo Biosciences, Inc. (U.S. corporation)
PI US 2003087817 A1 20030508
AI US 2001-897844 A1 20010702 (9)
RLI Continuation of Ser. No. US 1999-229037, filed on 12 Jan 1999, PENDING
DT Utility
FS APPLICATION
LN.CNT 3696
INCL INCLM: 514/012.000
INCLS: 435/455.000
NCL NCLM: 514/012.000
NCLS: 435/455.000
IC [7]
ICM: A61K038-48
ICS: C12N015-87
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 27 OF 88 USPATFULL on STN
AN 2003:127198 USPATFULL
TI Death associated kinase containing ankyr in repeats (DAKAR) and methods
of use
IN Bird, Timothy A., Bainbridge Island, WA, UNITED STATES
Holland, Pamela M., Seattle, WA, UNITED STATES
Peschon, Jacques J., Seattle, WA, UNITED STATES
Virca, George D., Bellevue, WA, UNITED STATES
PI US 2003087411 A1 20030508
AI US 2002-164080 A1 20020604 (10)
PRAI US 2001-295959P 20010604 (60)
US 2001-334362P 20011129 (60)
DT Utility
FS APPLICATION
LN.CNT 5574
INCL INCLM: 435/194.000
INCLS: 435/069.100; 435/320.100; 435/325.000; 536/023.200
NCL NCLM: 435/194.000
NCLS: 435/069.100; 435/320.100; 435/325.000; 536/023.200
IC [7]
ICM: C12N009-12
ICS: C07H021-04; C12P021-02; C12N005-06
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 28 OF 88 USPATFULL on STN
AN 2003:120069 USPATFULL
TI Modulation of gene expression using localization domains
IN Wolfe, Alan P., UNITED STATES
Urnov, Fyodor, Richmond, CA, UNITED STATES
Lai, Albert, Richmond, CA, UNITED STATES

Raschke, Eva, Berkeley, CA, UNITED STATES
Wolffe, Elizabeth J., San Francisco, CA, UNITED STATES LR
PI US 2003082552 A1 20030501
AI US 2001-967869 A1 20010928 (9)
PRAI US 2000-236884P 20000929 (60)
DT Utility
FS APPLICATION
LN.CNT 3097
INCL INCLM: 435/006.000
INCLS: 435/455.000; 435/317.100
NCL NCLM: 435/006.000
NCLS: 435/455.000; 435/317.100
IC [7]
ICM: C12Q001-68
ICS: C12N015-85; C12N001-00
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 29 OF 88 USPATFULL on STN
AN 2003:100071 USPATFULL
TI Alternative splice forms of proteins as basis for multiple therapeutic modalities
IN Wong, Albert J., Philadelphia, PA, UNITED STATES
PI US 2003069181 A1 20030410
AI US 2002-156932 A1 20020528 (10)
PRAI US 2001-293791P 20010525 (60)
DT Utility
FS APPLICATION
LN.CNT 3613
INCL INCLM: 514/012.000
INCLS: 514/013.000; 514/014.000; 514/015.000; 514/016.000; 514/017.000;
514/018.000; 530/324.000; 530/325.000; 530/328.000; 530/329.000;
530/330.000; 530/326.000; 530/327.000
NCL NCLM: 514/012.000
NCLS: 514/013.000; 514/014.000; 514/015.000; 514/016.000; 514/017.000;
514/018.000; 530/324.000; 530/325.000; 530/328.000; 530/329.000;
530/330.000; 530/326.000; 530/327.000
IC [7]
ICM: A61K038-16
ICS: A61K038-10; A61K038-08; C07K014-435; C07K007-08; C07K007-06
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 30 OF 88 USPATFULL on STN
AN 2003:86849 USPATFULL
TI Cellular proteins as targets for the treatment of pathogens resistant to drugs that target pathogen-encoded proteins
IN Schaffer, Priscilla A., Boston, MA, UNITED STATES
Schang, Luis M., Edmonton, CANADA
PI US 2003060457 A1 20030327
AI US 2000-905695 A1 20001206 (9)
RLI Continuation-in-part of Ser. No. US 2000-951058, filed on 12 Sep 2000, PENDING Continuation-in-part of Ser. No. US 2000-656592, filed on 7 Sep 2000, PENDING Continuation of Ser. No. WO 1999-US16252, filed on 16 Jul 1999, PENDING
PRAI US 1998-94805P 19980731 (60)
US 1999-131264P 19990427 (60)
US 1999-140926P 19990624 (60)
DT Utility
FS APPLICATION
LN.CNT 3979
INCL INCLM: 514/211.080
INCLS: 514/263.400; 514/456.000; 514/473.000; 514/414.000; 514/285.000;
514/518.000
NCL NCLM: 514/211.080
NCLS: 514/263.400; 514/456.000; 514/473.000; 514/414.000; 514/285.000;
514/518.000
IC [7]
ICM: A61K031-553
ICS: A61K031-52; A61K031-4745; A61K031-365; A61K031-404; A61K031-255
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 31 OF 88 USPATFULL on STN
AN 2003:86246 USPATFULL
TI Protein quantitation with cell imaging densitometry
IN Smith, Steven Jay, Bronx, NY, UNITED STATES
PI US 2003059851 A1 20030327
AI US 2001-840404 A1 20010424 (9)

RLI Continuation-in-part of Ser. No. WO 1999-US15743, filed on 13 Jul 1999,
UNKNOWN
PRAI US 1998-105163P 19981021 (60)
DT Utility
FS APPLICATION
LN.CNT 3895
INCL INCLM: 435/007.200
INCLS: 435/040.500; 435/007.230
NCL NCLM: 435/007.200
NCLS: 435/040.500; 435/007.230
IC [7]
ICM: G01N033-53
ICS: G01N033-567; G01N033-574
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 32 OF 88 USPATFULL on STN
AN 2003:78489 USPATFULL
TI Novel complex-forming proteins
IN Jerome, Valerie, Coelbe, GERMANY, FEDERAL REPUBLIC OF
Sedlacek, Hans-Harald, Marburg, GERMANY, FEDERAL REPUBLIC OF
Mueller, Rolf, Marburg, GERMANY, FEDERAL REPUBLIC OF
PI US 2003054409 A1 20030320
AI US 2002-201949 A1 20020725 (10)
RLI Continuation of Ser. No. US 2000-481593, filed on 12 Jan 2000, PENDING
PRAI DE 2000-19900743 20000112
DT Utility
FS APPLICATION
LN.CNT 2397
INCL INCLM: 435/007.100
INCLS: 435/069.700; 435/069.500; 435/320.100; 435/325.000; 530/350.000;
530/351.000; 435/183.000
NCL NCLM: 435/007.100
NCLS: 435/069.700; 435/069.500; 435/320.100; 435/325.000; 530/350.000;
530/351.000; 435/183.000
IC [7]
ICM: G01N033-53
ICS: C12P021-02; C12N009-00; C07K014-715; C07K014-52
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 33 OF 88 USPATFULL on STN
AN 2003:71364 USPATFULL
TI Targeted modification of chromatin structure
IN Wolfe, Alan P., UNITED STATES
Wolffe, Elizabeth J., UNITED STATES LR
Collingwood, Trevor, San Pablo, CA, UNITED STATES
Snowden, Andrew, Richmond, CA, UNITED STATES
PI US 2003049649 A1 20030313
AI US 2002-84826 A1 20020224 (10)
RLI Continuation-in-part of Ser. No. US 2001-844508, filed on 27 Apr 2001,
PENDING
PRAI US 2000-200590P 20000428 (60)
US 2000-228523P 20000828 (60)
DT Utility
FS APPLICATION
LN.CNT 4122
INCL INCLM: 435/006.000
INCLS: 435/455.000; 435/468.000; 435/199.000
NCL NCLM: 435/006.000
NCLS: 435/455.000; 435/468.000; 435/199.000
IC [7]
ICM: C12Q001-68
ICS: C12N009-22; C12N015-82; C12N015-87
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 34 OF 88 USPATFULL on STN
AN 2003:51206 USPATFULL
TI Novel PN9826 nucleic acids and use thereof
IN Wettstein, Daniel Albert, Salt Lake City, UT, UNITED STATES
Mauck, Kimberly A., Sandy, UT, UNITED STATES
PA Myriad Genetics, Incorporated, Salt Lake City, UT, UNITED STATES, 84108
(U.S. corporation)
PI US 2003036163 A1 20030220
AI US 2002-195142 A1 20020710 (10)
PRAI US 2001-304323P 20010710 (60)
DT Utility
FS APPLICATION

LN.CNT 5944
INCL INCLM: 435/069.100
INCL INCLS: 435/183.000; 435/320.100; 435/325.000; 530/350.000; 536/023.200
NCL NCLM: 435/069.100
NCL NCLS: 435/183.000; 435/320.100; 435/325.000; 530/350.000; 536/023.200
IC [7]
ICM: C12P021-02
ICS: C12N005-06; C07K014-435; C07H021-04; C12N009-00
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 35 OF 88 USPATFULL on STN
AN 2003:45285 USPATFULL
TI Targeting nucleic acids to a cellular nucleus
IN Sebestyen, Magdolna G., Madison, WA, UNITED STATES
PI US 2003032597 A1 20030213
AI US 2002-200800 A1 20020722 (10)
PRAI US 2001-309319P 20010731 (60)
DT Utility
FS APPLICATION
LN.CNT 1334
INCL INCLM: 514/012.000
INCL INCLS: 514/044.000
NCL NCLM: 514/012.000
NCL NCLS: 514/044.000
IC [7]
ICM: A61K048-00
ICS: A61K038-17
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 36 OF 88 USPATFULL on STN
AN 2003:37690 USPATFULL
TI Genome engineering by cell-permeable DNA site-specific recombinases
IN Ruley, H. Earl, Nashville, TN, UNITED STATES
Jo, Daewoong, Nashville, TN, UNITED STATES
PI US 2003027335 A1 20030206
AI US 2001-948193 A1 20010907 (9)
PRAI US 2000-230690P 20000907 (60)
DT Utility
FS APPLICATION
LN.CNT 1670
INCL INCLM: 435/455.000
INCL INCLS: 435/199.000; 435/004.000
NCL NCLM: 435/455.000
NCL NCLS: 435/199.000; 435/004.000
IC [7]
ICM: C12N015-87
ICS: C12Q001-00; C12N009-22
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 37 OF 88 USPATFULL on STN
AN 2003:30383 USPATFULL
TI APOA2-interacting proteins and use thereof
IN Bartel, Paul, Salt Lake City, UT, UNITED STATES
Sugiyama, Janice, Salt Lake City, UT, UNITED STATES
PA Myriad Genetics, Incorporated, Salt Lake City, UT (U.S. corporation)
PI US 2003022330 A1 20030130
AI US 2002-125639 A1 20020418 (10)
PRAI US 2001-285324P 20010419 (60)
US 2002-349843P 20020117 (60)
DT Utility
FS APPLICATION
LN.CNT 4780
INCL INCLM: 435/183.000
INCL INCLS: 435/226.000; 435/007.100
NCL NCLM: 435/183.000
NCL NCLS: 435/226.000; 435/007.100
IC [7]
ICM: G01N033-53
ICS: C12N009-00; C12N009-64
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 38 OF 88 USPATFULL on STN
AN 2003:17417 USPATFULL
TI Transcription factor E2F DNA-binding domain inhibitor peptides and their
use
IN Muller, Rolf, Marburg, GERMANY, FEDERAL REPUBLIC OF

Kontermann, Roland E., Marburg, GERMANY, FEDERAL REPUBLIC OF
Montigiani, Silvia, Siena, ITALY
PI US 2003013169 A1 20030116
AI US 2001-912414 A1 20010726 (9)
RLI Continuation of Ser. No. WO 2000-GB227, filed on 26 Jan 2000, UNKNOWN
PRAI GB 1999-1710 19990126
DT Utility
FS APPLICATION
LN.CNT 1014
INCL INCLM: 435/184.000
INCLS: 530/330.000
NCL NCLM: 435/184.000
NCLS: 530/330.000
IC [7]
ICM: C12N009-99
ICS: C07K007-06
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 39 OF 88 USPATFULL on STN
AN 2003:10678 USPATFULL
TI APOA1-interacting proteins and use thereof
IN Bartel, Paul, Salt Lake City, UT, UNITED STATES
Szankasi, Philippe, Salt Lake City, UT, UNITED STATES
Sugiyama, Janice, Salt Lake City, UT, UNITED STATES
PA Myriad Genetics, Incorporated, Salt Lake City, UT (U.S. corporation)
PI US 2003008373 A1 20030109
AI US 2002-124767 A1 20020417 (10)
PRAI US 2001-284220P 20010417 (60)
US 2002-354899P 20020206 (60)
DT Utility
FS APPLICATION
LN.CNT 4667
INCL INCLM: 435/226.000
INCLS: 435/183.000; 435/007.100
NCL NCLM: 435/226.000
NCLS: 435/183.000; 435/007.100
IC [7]
ICM: G01N033-53
ICS: C12N009-00; C12N009-64
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 40 OF 88 USPATFULL on STN
AN 2003:10629 USPATFULL
TI Caspase-7-interacting protein and use thereof
IN Bartel, Paul, Salt Lake City, UT, UNITED STATES
PA Myriad Genetics, Incorporated, Salt Lake City, UT (U.S. corporation)
PI US 2003008324 A1 20030109
AI US 2002-124550 A1 20020417 (10)
PRAI US 2001-284404P 20010417 (60)
DT Utility
FS APPLICATION
LN.CNT 4771
INCL INCLM: 435/007.100
INCLS: 435/226.000; 435/069.100; 435/069.700; 435/320.100; 435/325.000
NCL NCLM: 435/007.100
NCLS: 435/226.000; 435/069.100; 435/069.700; 435/320.100; 435/325.000
IC [7]
ICM: G01N033-53
ICS: C12P021-04; C12N009-64; C12N005-06
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 41 OF 88 USPATFULL on STN
AN 2003:302698 USPATFULL
TI Methods and compositions to induce antitumor response
IN LaFace, Drake M., San Diego, CA, United States
PA Canji, Inc., San Diego, CA, United States (U.S. corporation)
PI US 6649158 B1 20031118
AI US 1999-416813 19991013 (9)
PRAI US 1998-104370P 19981015 (60)
DT Utility
FS GRANTED
LN.CNT 1069
INCL INCLM: 424/093.170
INCLS: 435/069.100; 435/083.000; 435/320.100; 435/325.000
NCL NCLM: 424/093.200
NCLS: 435/069.100; 435/083.000; 435/320.100; 435/325.000

IC [7]
ICM: A01N063-00
ICS: C12N021-06; C12N019-52; C12N015-00; C12N005-00
EXF 435/320.1; 435/69.1; 435/83; 435/325; 514/44; 424/93.17
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

LS ANSWER 42 OF 88 USPATFULL on STN
AN 2003:279114 USPATFULL
TI Targeted vectors
IN Murphy, Richard B., San Diego, CA, United States
PA Canji, Inc., San Diego, CA, United States (U.S. corporation)
PI US 6635476 B1 20031021
AI US 2000-687930 20001013 (9)
PRAI US 1999-159782P 19991015 (60)
DT Utility
FS GRANTED
LN.CNT 1555
INCL INCLM: 435/320.100
INCLS: 424/199.100; 424/093.100; 424/093.200; 435/235.100
NCL NCLM: 435/320.100
NCLS: 424/093.100; 424/093.200; 424/199.100; 435/235.100
IC [7]
ICM: C12N015-00
ICS: C12N015-09; C12N015-63; C12N015-70; C12N015-74
EXF 435/320.1; 435/455; 435/235.1; 424/9.1; 424/93.2; 424/199.1; 424/93.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

LS ANSWER 43 OF 88 USPATFULL on STN
AN 2003:222018 USPATFULL
TI Regulation of endogenous gene expression in cells using zinc finger proteins
IN Cox, III, George N., Louisville, CO, United States
Case, Casey C., San Mateo, CA, United States
Eisenberg, Stephen P., Boulder, CO, United States
Jarvis, Eric E., Boulder, CO, United States
Spratt, Sharon K., Vacaville, CA, United States
PA Sangamo Biosciences, Inc., Richmond, CA, United States (U.S. corporation)
PI US 6607882 B1 20030819
AI US 2000-478681 20000106 (9)
RLI Continuation-in-part of Ser. No. US 1999-229037, filed on 12 Jan 1999
DT Utility
FS GRANTED
LN.CNT 4053
INCL INCLM: 435/006.000
INCLS: 435/320.100; 435/455.000; 435/468.000; 536/023.100; 536/023.400;
536/024.100
NCL NCLM: 435/006.000
NCLS: 435/320.100; 435/455.000; 435/468.000; 536/023.100; 536/023.400;
536/024.100
IC [7]
ICM: C12Q001-68
ICS: C12N005-10; C12N015-11; C12N015-63
EXF 435/6; 435/320.1; 435/455; 435/468; 530/350; 536/23.1; 536/24.1;
536/23.4
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

LS ANSWER 44 OF 88 USPATFULL on STN
AN 2003:203218 USPATFULL
TI Functional genomics using zinc finger proteins
IN Case, Casey C., San Mateo, CA, United States
Zhang, Lei, San Francisco, CA, United States
PA Sangamo Bioscience, Inc., Richmond, CA, United States (U.S. corporation)
PI US 6599692 B1 20030729
AI US 1999-395448 19990914 (9)
DT Utility
FS GRANTED
LN.CNT 3576
INCL INCLM: 435/004.000
INCLS: 435/006.000; 536/023.100
NCL NCLM: 435/004.000
NCLS: 435/006.000; 536/023.100
IC [7]
ICM: C12Q001-02
ICS: C12Q001-68; C12N015-12
EXF 435/4; 435/6; 435/320.1; 435/69.1; 536/23.1; 536/23.4

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 45 OF 88 USPATFULL on STN
AN 2003:74259 USPATFULL
TI Regulation of endogenous gene expression in cells using zinc finger proteins
IN Cox, III, George Norbert, Louisville, CO, United States
Case, Casey Christopher, San Mateo, CA, United States
Eisenberg, Stephen P., Boulder, CO, United States
Jarvis, Eric Edward, Boulder, CO, United States
Spratt, Sharon Kaye, Vacaville, CA, United States
PA Sangamo Biosciences, Inc., Richmond, CA, United States (U.S. corporation)
PI US 6534261 B1 20030318
AI US 1999-229037 19990112 (9)
DT Utility
FS GRANTED
LN.CNT 4099
INCL INCLM: 435/006.000
INCLS: 435/029.000; 536/023.500; 536/024.100
NCL NCLM: 435/006.000
NCLS: 435/029.000; 536/023.500; 536/024.100
IC [7]
ICM: C12Q001-68
ICS: C12N015-12
EXF 514/44; 514/725; 435/29; 435/6; 530/387.1; 536/23.1; 536/23.5; 536/24.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 46 OF 88 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2003:119444 BIOSIS
DN PREV200300119444
TI Intercellular trafficking and enhanced in vivo antitumour activity of a non-virally delivered P27- ***VP22*** fusion protein.
AU Zavaglia, D.; Favrot, M.-C.; Eymin, B.; Tenaud, C.; Coll, J.-L. [Reprint Author]
CS Groupe de Recherche sur le Cancer du Poumon, Equipe INSERM 9924, Institut Albert Bonniot, 38706, La Tronche Cedex, France
SO Gene Therapy, (February 2003) Vol. 10, No. 4, pp. 314-325. print.
ISSN: 0969-7128 (ISSN print).
DT Article
LA English
ED Entered STN: 5 Mar 2003
Last Updated on STN: 5 Mar 2003

L5 ANSWER 47 OF 88 IFIPAT COPYRIGHT 2004 IFI on STN
AN 10212281 IFIPAT;IFIUDB;IFICDB
TI USES OF TRANSPORT PROTEINS
IN Brewis Neil Douglas (GB); Normand Nadia Michelle (GB); O'Hare Peter Francis Joseph (GB); Phelan Anne (GB)
PA Unassigned Or Assigned To Individual (68000)
PI US 2002155988 A1 20021024
AI US 2000-747772 20001220
PRAI GB 1999-305195 19991224
FI US 2002155988 20021024
DT Utility; Patent Application - First Publication
FS CHEMICAL
APPLICATION
CLMN 16

L5 ANSWER 48 OF 88 IFIPAT COPYRIGHT 2004 IFI on STN
AN 10162732 IFIPAT;IFIUDB;IFICDB
TI MATERIALS AND METHODS FOR INTRACELLULAR TRANSPORT AND THEIR USES; FOR INTRACELLULAR DELIVERY OF PROTEIN SEQUENCES, TO EXERT THE CORRESPONDING EFFECTOR FUNCTION IN THE TARGET CELL
IN Elliott Gillian Daphne (GB); O'Hare Peter Francis Joseph (GB)
PA Unassigned Or Assigned To Individual (68000)
PI US 2002106378 A1 20020808
AI US 2001-800433 20010305
RLI US 1999-395344 19990913 CONTINUATION 6251398
PRAI GB 1997-13635 19970123
GB 1997-163984 19970801
FI US 2002106378 20020808
US 6251398
DT Utility; Patent Application - First Publication
FS CHEMICAL
APPLICATION

CLMN 12

GI 6 Figure(s).

FIG. 1 illustrates that:

Mock-transfected cos-1 cells were labelled by indirect immunofluorescence with antibodies for ***VP22*** (FIG. 1a), p53 (FIG. 1c) and the CMV epitope (FIG. 1d) to establish the levels of background label. Cells transfected with pc49epB (FIG. 1b) and labelled for P22 demonstrate a typical ***VP22*** cytoplasmic pattern with clear spread to the nuclei of adjacent cells. Cells transfected with the ***VP22*** -p53 fusion protein construct p4955Sep+10 were labelled for ***VP22*** and p53 (FIGS. 1e and 1f) or ***VP22*** and epitope (FIGS. 1g and h): the fusion protein can be detected in the nuclei of cells adjacent to the primary expressing cell.

FIG. 2 is a plasmid map to illustrate p4953ep+10, encoding a fusion protein comprising sequences ***VP22***, p53 and an epitope tag.

FIG. 3 illustrates that

Protein extracts from cos-1 cells transfected with a range of plasmid constructs were analysed by western blot. The panel shown leftmost has been probed with an antibody against ***VP22*** and demonstrates that pUL49epB and pc49epB plasmids encoding ***VP22*** alone generate a protein of 38kDa, the ***VP22*** -p53 fusion protein expressed from p4953ep+10 produces a protein of approx. 50 kDa with very little degradation.

The panel shown rightmost has been probed with an antibody against p53 and demonstrates that cells transfected with plasmids encoding either p53 alone (pcB6+p53) or the p4953ep+10 fusion protein construct produce p53 protein at 53 kDa. The p4953ep+10 construct also synthesises the ***VP22*** -p53 fusion protein at 90 kDa, the p53 in this sample may be a degradation product or more likely endogenously induced p53.

L5 ANSWER 49 OF 88 USPATFULL on STN

AN 2002:343965 USPATFULL

TI FLT4-interacting proteins and use thereof

IN Sugiyama, Janice, Salt Lake City, UT, UNITED STATES

PA Myriad Genetics, Incorporated, Salt Lake City, UT, UNITED STATES (U.S. corporation)

PI US 2002197691 A1 20021226

AI US 2002-135802 A1 20020429 (10)

PRAI US 2001-287513P 20010430 (60)

DT Utility

FS APPLICATION

LN.CNT 4778

INCL INCLM: 435/183.000

INCLS: 435/320.100; 435/325.000; 435/007.230

NCL NCLM: 435/183.000

NCLS: 435/320.100; 435/325.000; 435/007.230

IC [7]

ICM: G01N033-574

ICS: C12N009-00; C12N005-00

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 50 OF 88 USPATFULL on STN .

AN 2002:329464 USPATFULL

TI Methods and compositions for reducing immune response

IN LaFace, Drake M., San Diego, CA, UNITED STATES

Rahman, Amena, San Diego, CA, UNITED STATES

Shabram, Paul W., Olivenhain, CA, UNITED STATES

Tsai, Van T., San Diego, CA, UNITED STATES

PI US 2002187143 A1 20021212

AI US 2002-222722 A1 20020816 (10)

RLI Division of Ser. No. US 2000-653474, filed on 31 Aug 2000, GRANTED, Pat.

No. US 6464976

PRAI US 1999-152650P 19990907 (60)

DT Utility

FS APPLICATION

LN.CNT 1482

INCL INCLM: 424/140.100

INCLS: 435/320.100; 536/023.720

NCL NCLM: 424/140.100

NCLS: 435/320.100; 536/023.720

IC [7]

ICM: A61K039-395

ICS: A61K039-00; C07H021-04; C12N015-00; C12N015-09; C12N015-63; C12N015-70; C12N015-74

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 51 OF 88 USPATFULL on STN
AN 2002:315203 USPATFULL
TI BCL-XL-interacting protein and use thereof
IN Bartel, Paul, Salt Lake City, UT, UNITED STATES
PA Myriad Genetics, Incorporated, Salt Lake City, UT, UNITED STATES, 84108
(U.S. corporation)
PI US 2002177692 A1 20021128
AI US 2002-122573 A1 20020415 (10)
PRAI US 2001-284095P 20010416 (60)
DT Utility
FS APPLICATION
LN.CNT 4757
INCL INCLM: 530/350.000
INCLS: 435/069.700; 435/325.000; 435/184.000; 435/320.100; 435/287.200
NCL NCLM: 530/350.000
NCLS: 435/069.700; 435/325.000; 435/184.000; 435/320.100; 435/287.200
IC [7]
ICM: G01N033-574
ICS: C12P021-04; C12N009-99; C12P021-02; C12N005-06
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 52 OF 88 USPATFULL on STN
AN 2002:314730 USPATFULL
TI Tsg101-interacting proteins and use thereof
IN Sugiyama, Janice, Salt Lake City, UT, UNITED STATES
Cimbora, Daniel, Salt Lake City, UT, UNITED STATES
PA Myriad Genetics, Incorporated, Salt Lake City, UT, UNITED STATES, 84108
(U.S. corporation)
PI US 2002177207 A1 20021128
AI US 2002-98979 A1 20020314 (10)
PRAI US 2001-276259P 20010314 (60)
US 2001-304101P 20010710 (60)
DT Utility
FS APPLICATION
LN.CNT 7034
INCL INCLM: 435/196.000
INCLS: 435/226.000; 435/199.000
NCL NCLM: 435/196.000
NCLS: 435/226.000; 435/199.000
IC [7]
ICM: C12N009-16
ICS: C12N009-22; C12N009-64
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 53 OF 88 USPATFULL on STN
AN 2002:314700 USPATFULL
TI Interaction between ***cyclin*** D1 and steroid receptor
co-activators and uses thereof in assays
IN Bernards, Rene, Alconde, NETHERLANDS
Zwijssen, Renate, Utrecht, NETHERLANDS
PA Prolifix Limited, Abingdon, UNITED KINGDOM (non-U.S. corporation)
PI US 2002177177 A1 20021128
AI US 2001-953031 A1 20010914 (9)
RLI Continuation of Ser. No. US 1999-302305, filed on 30 Apr 1999, PATENTED
Continuation of Ser. No. WO 1999-GB440, filed on 12 Feb 1999, UNKNOWN
PRAI GB 1998-3035 19980212
GB 1998-18243 19980820
DT Utility
FS APPLICATION
LN.CNT 1505
INCL INCLM: 435/007.230
INCLS: 530/326.000; 530/327.000; 530/328.000; 514/014.000; 514/015.000;
514/016.000
NCL NCLM: 435/007.230
NCLS: 530/326.000; 530/327.000; 530/328.000; 514/014.000; 514/015.000;
514/016.000
IC [7]
ICM: G01N033-574
ICS: A61K038-10; A61K038-08
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 54 OF 88 USPATFULL on STN
AN 2002:314675 USPATFULL
TI COX 1-interacting proteins and use thereof
IN Wettstein, Daniel Albert, Salt Lake City, UT, UNITED STATES
PA Myriad Genetics, Incorporated, Salt Lake City, UT (U.S. corporation)

PI US 2002177152 A1 20021128
AI US 2002-100503 A1 20020318 (10)
PRAI US 2001-277013P 20010319 (60)
DT Utility
FS APPLICATION
LN.CNT 4721
INCL INCLM: 435/006.000
INCLS: 435/069.100; 435/189.000; 435/320.100; 435/325.000
NCL NCLM: 435/006.000
NCLS: 435/069.100; 435/189.000; 435/320.100; 435/325.000
IC [7]
ICM: C12Q001-68
ICS: C12N009-02
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 55 OF 88 USPATFULL on STN
AN 2002:307902 USPATFULL
TI Survivin-interacting proteins and use thereof
IN Wettstein, Daniel Albert, Salt Lake City, UT, UNITED STATES
Cimbora, Daniel, Salt Lake City, UT, UNITED STATES
PA Myriad Genetics, Incorporated, Salt Lake City, UT (U.S. corporation)
PI US 2002173026 A1 20021121
AI US 2002-99924 A1 20020314 (10)
PRAI US 2001-276179P 20010315 (60)
US 2001-307233P 20010723 (60)
DT Utility
FS APPLICATION
LN.CNT 5137
INCL INCLM: 435/199.000
INCLS: 435/226.000; 435/069.100; 435/320.100; 435/325.000
NCL NCLM: 435/199.000
NCLS: 435/226.000; 435/069.100; 435/320.100; 435/325.000
IC [7]
ICM: C12N009-22
ICS: C12N009-64; C12P021-02; C12N005-06
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 56 OF 88 USPATFULL on STN
AN 2002:294532 USPATFULL
TI Gene identification
IN Case, Casey C., San Mateo, CA, UNITED STATES
Urnov, Fyodor, Richmond, CA, UNITED STATES
PA Sangamo Biosciences, Inc., a Delaware Corporation, Richmond, CA (U.S. corporation)
PI US 2002164575 A1 20021107
AI US 2001-942090 A1 20010828 (9)
RLI Continuation-in-part of Ser. No. US 1999-395448, filed on 14 Sep 1999, PENDING
DT Utility
FS APPLICATION
LN.CNT 3687
INCL INCLM: 435/004.000
INCLS: 435/006.000
NCL NCLM: 435/004.000
NCLS: 435/006.000
IC [7]
ICM: C12Q001-00
ICS: C12Q001-68
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 57 OF 88 USPATFULL on STN
AN 2002:288071 USPATFULL
TI Modulation of endogenous gene expression in cells
IN Case, Casey C., San Mateo, CA, UNITED STATES
Wolffe, Alan, UNITED STATES
Urnov, Fyodor, Richmond, CA, UNITED STATES
Lai, Albert, Richmond, CA, UNITED STATES
Snowden, Andrew, Richmond, CA, UNITED STATES
Tan, Siyuan, Alameda, CA, UNITED STATES
Gregory, Philip, El Cerrito, CA, UNITED STATES
PI US 2002160940 A1 20021031
AI US 2001-942087 A1 20010828 (9)
RLI Continuation-in-part of Ser. No. US 1999-229037, filed on 12 Jan 1999, PENDING
DT Utility
FS APPLICATION

LN.CNT 3966
INCL INCLM: 514/006.000
INCL INCLS: 435/455.000
NCL NCLM: 514/006.000
NCL NCLS: 435/455.000

IC [7]
ICM: A61K038-48

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 58 OF 88 USPATFULL on STN

AN 2002:279998 USPATFULL

TI Genetically engineered herpes virus for the treatment of cardiovascular disease

IN Schwartz, Lewis B., Hinsdale, IL, UNITED STATES
Weichselbaum, Ralph R., Chicago, IL, UNITED STATES
Roizman, Bernard, Chicago, IL, UNITED STATES

PI US 2002155432 A1 20021024

AI US 2001-995475 A1 20011128 (9)

PRAI US 2000-253680P 20001128 (60)

DT Utility

FS APPLICATION

LN.CNT 4203

INCL INCLM: 435/005.000
INCL INCLS: 435/320.100; 435/069.100; 424/199.100; 424/229.100; 424/205.100

NCL NCLM: 435/005.000

NCL NCLS: 435/320.100; 435/069.100; 424/199.100; 424/229.100; 424/205.100

IC [7]

ICM: C12Q001-70

ICS: C12P021-06; A61K039-12; A61K039-245; A61K039-255; A61K039-265;
A61K039-27; C12N015-00; C12N015-09; C12N015-63; C12N015-70; C12N015-74

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 59 OF 88 USPATFULL on STN

AN 2002:272442 USPATFULL

TI Selectively replicating viral vectors

IN Ramachandra, Muralidhara, San Diego, CA, UNITED STATES
Shabram, Paul W., Olivenhain, CA, UNITED STATES

PI US 2002150557 A1 20021017

AI US 2002-62216 A1 20020130 (10)

RLI Continuation-in-part of Ser. No. US 1999-416812, filed on 13 Oct 1999,
PENDING

PRAI US 1998-104399P 19981015 (60)

DT Utility

FS APPLICATION

LN.CNT 2723

INCL INCLM: 424/093.200
INCL INCLS: 424/456.000; 435/320.100

NCL NCLM: 424/093.200

NCL NCLS: 424/456.000; 435/320.100

IC [7]

ICM: A61K048-00

ICS: C12N015-861

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 60 OF 88 USPATFULL on STN

AN 2002:213835 USPATFULL

TI Targeted modification of chromatin structure

IN Wolfe, Alan P., Orinda, CA, UNITED STATES
Collingwood, Trevor, San Pablo, CA, UNITED STATES

PI US 2002115215 A1 20020822

AI US 2001-844508 A1 20010427 (9)

PRAI US 2000-200590P 20000428 (60)
US 2000-228523P 20000828 (60)

DT Utility

FS APPLICATION

LN.CNT 3444

INCL INCLM: 435/455.000
INCL INCLS: 435/468.000; 435/006.000

NCL NCLM: 435/455.000

NCL NCLS: 435/468.000; 435/006.000

IC [7]

ICM: C12Q001-68

ICS: C12N015-87

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 61 OF 88 USPATFULL on STN

AN 2002:178741 USPATFULL
TI Gene identification
IN Case, Casey C., San Mateo, CA, UNITED STATES
Urnov, Fyodor, Richmond, CA, UNITED STATES
PI US 2002094529 A1 20020718
AI US 2001-941450 A1 20010828 (9)
RLI Continuation-in-part of Ser. No. US 1999-395448, filed on 14 Sep 1999,
PENDING
DT Utility
FS APPLICATION
LN.CNT 3838
INCL INCLM: 435/006.000
INCLS: 435/004.000; 435/455.000
NCL NCLM: 435/006.000
NCLS: 435/004.000; 435/455.000
IC [7]
ICM: C12Q001-68
ICS: C12Q001-00
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 62 OF 88 USPATFULL on STN
AN 2002:157136 USPATFULL
TI Nucleic acid delivery
IN Conroy, Susan E., London, UNITED KINGDOM
Engler, Heidrun, San Diego, CA, UNITED STATES
Maneaval, Daniel C., San Diego, CA, UNITED STATES
PI US 2002081736 A1 20020627
AI US 2001-3494 A1 20011101 (10)
PRAI US 2000-245539P 20001103 (60)
US 2001-287871P 20010430 (60)
DT Utility
FS APPLICATION
LN.CNT 1225
INCL INCLM: 435/455.000
INCLS: 514/044.000; 514/053.000; 514/058.000
NCL NCLM: 435/455.000
NCLS: 514/044.000; 514/053.000; 514/058.000
IC [7]
ICM: A61K048-00
ICS: C12N015-87; A61K031-715
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 63 OF 88 USPATFULL on STN
AN 2002:157015 USPATFULL
TI Functional genomics using zinc finger proteins
IN Case, Casey C., San Mateo, CA, UNITED STATES
Zhang, Lei, San Francisco, CA, UNITED STATES
PA Sangamo Biosciences, Inc. (U.S. corporation)
PI US 2002081614 A1 20020627
AI US 2001-925796 A1 20010809 (9)
RLI Continuation of Ser. No. US 1999-395448, filed on 14 Sep 1999, PENDING
DT Utility
FS APPLICATION
LN.CNT 3297
INCL INCLM: 435/006.000
INCLS: 435/007.210; 702/019.000
NCL NCLM: 435/006.000
NCLS: 435/007.210; 702/019.000
IC [7]
ICM: C12Q001-68
ICS: G01N033-567; G06F019-00; G01N033-48; G01N033-50
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 64 OF 88 USPATFULL on STN
AN 2002:141137 USPATFULL
TI Herpes simplex virus for treating unwanted hyperproliferative cell
growth
IN Laquerre, Sylvie, Walnut Creek, CA, UNITED STATES
Hermiston, Terry, Corte Madera, CA, UNITED STATES
PI US 2002072119 A1 20020613
US 6660259 B2 20031209
AI US 2000-733807 A1 20001208 (9)
PRAI US 1999-169829P 19991208 (60)
DT Utility
FS APPLICATION
LN.CNT 632

INCL INCLM: 435/456.000
INCLS: 424/093.600; 435/235.100
NCL NCLM: 424/093.200
NCLS: 435/069.100; 435/091.410; 435/320.100; 435/325.000
[7]
IC ICM: A61K048-00
ICS: C12N015-869; C12N007-00

L5 ANSWER 65 OF 88 USPATFULL on STN
AN 2002:133848 USPATFULL
TI INHIBITORS OF CELL-CYCLE PROGRESSION AND USES RELATED THERETO
IN GYURIS, JENO, WINCHESTER, MA, UNITED STATES
LAMPHERE, LOU, BOSTON, MA, UNITED STATES
BEACH, DAVID H., HUNTINGTON BAY, NY, UNITED STATES
PI US 2002068706 A1 20020606
US 6495526 B2 20021217
AI US 1997-902572 A1 19970729 (8)
RLI Continuation-in-part of Ser. No. US 1996-589981, filed on 23 Jan 1996,
GRANTED, Pat. No. US 5672508

DT Utility
FS APPLICATION
LN.CNT 3464
INCL INCLM: 514/044.000
INCLS: 435/455.000; 536/023.400; 536/023.720; 536/024.100
NCL NCLM: 514/044.000
NCLS: 536/023.400; 536/023.720; 536/024.100
IC [7]
ICM: A61K031-70
ICS: C12N015-63; C07H021-04

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 66 OF 88 USPATFULL on STN
AN 2002:133421 USPATFULL
TI Methods using genetic package display for detecting and identifying
protein-protein interactions that facilitate internalization and
transgene expression and cells or tissues competent for the same and
methods for evolving gene delivery vectors
IN Larocca, David, Encinitas, CA, UNITED STATES
Kassner, Paul, San Mateo, CA, UNITED STATES
Baird, Andrew, San Diego, CA, UNITED STATES
PI US 2002068272 A1 20020606
AI US 2001-866073 A1 20010524 (9)
RLI Continuation-in-part of Ser. No. WO 2000-US9925361, filed on 25 May
2000, UNKNOWN
DT Utility
FS APPLICATION
LN.CNT 2965

INCL INCLM: 435/005.000
INCLS: 435/006.000; 435/007.100
NCL NCLM: 435/005.000
NCLS: 435/006.000; 435/007.100
IC [7]
ICM: C12Q001-70
ICS: C12Q001-68; G01N033-53

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 67 OF 88 USPATFULL on STN
AN 2002:85118 USPATFULL
TI Cells for drug discovery
IN Case, Casey, San Mateo, CA, UNITED STATES
PI US 2002045158 A1 20020418
US 6689558 B2 20040210
AI US 2001-779233 A1 20010208 (9)
PRAI US 2000-181117P 20000208 (60)
DT Utility
FS APPLICATION
LN.CNT 3557
INCL INCLM: 435/004.000
INCLS: 435/325.000
NCL NCLM: 435/004.000
NCLS: 435/007.210; 435/006.000; 435/007.400; 435/029.000
IC [7]
ICM: C12Q001-00
ICS: C12N005-06

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 68 OF 88 USPATFULL on STN
AN 2002:332609 USPATFULL
TI Complex-forming proteins
IN Jerome, Valerie, Colbe, GERMANY, FEDERAL REPUBLIC OF
Sedlacek, Hans-Harald, Marburg, GERMANY, FEDERAL REPUBLIC OF
Muller, Rolf, Marburg, GERMANY, FEDERAL REPUBLIC OF
PA Aventis Pharma Deutschland GmbH, Frankfurt, GERMANY, FEDERAL REPUBLIC OF
(non-U.S. corporation)
PI US 6495346 B1 20021217
AI US 2000-481593 20000112 (9)
PRAI DE 1999-19900743 19990112
DT Utility
FS GRANTED
LN.CNT 2224
INCL INCLM: 435/069.700
INCLS: 435/069.500; 435/069.520; 424/085.100; 424/085.200; 536/023.400;
536/023.500; 536/023.510; 530/351.000
NCL NCLM: 435/069.700
NCLS: 424/085.100; 424/085.200; 435/069.500; 435/069.520; 530/351.000;
536/023.400; 536/023.500; 536/023.510
IC [7]
ICM: C12N015-62
ICS: A61K038-20; C07K014-54
EXF 435/6; 435/69.7; 435/69.5; 435/69.52; 536/23.4; 536/23.5; 530/351;
424/85.1; 424/85.2
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 69 OF 88 USPATFULL on STN
AN 2002:268409 USPATFULL
TI Methods and compositions for reducing immune response
IN LaFace, Drake M., San Diego, CA, United States
Rahman, Amena, San Diego, CA, United States
Shabram, Paul W., Olivenhain, CA, United States
Tsai, Van T., San Diego, CA, United States
PA Canji, Inc., San Diego, CA, United States (U.S. corporation)
PI US 6464976 B1 20021015
AI US 2000-653474 20000831 (9)
PRAI US 1999-152650P 19990907 (60)
DT Utility
FS GRANTED
LN.CNT 1437
INCL INCLM: 424/140.100
INCLS: 424/233.100; 424/131.100; 424/159.100; 424/278.100; 424/093.100;
435/007.100; 530/351.000; 514/885.000; 604/004.010; 604/005.010;
604/005.020
NCL NCLM: 424/140.100
NCLS: 424/093.100; 424/131.100; 424/159.100; 424/233.100; 424/278.100;
435/007.100; 514/885.000; 530/351.000; 604/004.010; 604/005.010;
604/005.020
IC [7]
ICM: A61K039-00
ICS: A61K045-00; A61K039-395; A61M037-00; G01N033-53
EXF 435/7.1; 424/140.1; 424/233.1; 424/131.1; 424/159.1; 424/278.1;
424/93.1; 530/351; 514/885; 604/4.01; 604/5.01; 604/5.02
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 70 OF 88 USPATFULL on STN
AN 2002:238816 USPATFULL
TI Methods using genetic package display for selecting internalizing
ligands for gene delivery
IN Larocca, David, Encinitas, CA, United States
Baird, Andrew, San Diego, CA, United States
Kassner, Paul, Hayward, CA, United States
PA Selective Genetics, Inc., San Diego, CA, United States (U.S.
corporation)
PI US 6451527 B1 20020917
AI US 1999-258689 19990226 (9)
RLI Continuation-in-part of Ser. No. US 1998-193445, filed on 17 Nov 1998
Continuation-in-part of Ser. No. US 1998-195379, filed on 17 Nov 1998
Continuation-in-part of Ser. No. US 1998-141631, filed on 28 Aug 1998,
now abandoned
PRAI US 1997-57067P 19970829 (60)
DT Utility
FS GRANTED
LN.CNT 2048
INCL INCLM: 435/006.000

INCL: 435/005.000; 435/235.100; 435/320.100; 435/DIG.002; 435/DIG.003;
 435/DIG.004; 435/DIG.014; 435/DIG.015; 435/DIG.017; 536/023.100
 NCL NCLM: 435/006.000
 NCLS: 435/005.000; 435/235.100; 435/320.100; 435/DIG.002; 435/DIG.003;
 435/DIG.004; 435/DIG.014; 435/DIG.015; 435/DIG.017; 536/023.100
 IC [7]
 ICM: C12Q001-68
 ICS: C12Q001-70; C12N015-00; C07H021-02
 EXF 435/7.1; 435/5; 435/6; 435/235.1; 435/320.1; 435/69.1; 435/DIG.1;
 435/DIG.2; 435/DIG.3; 435/DIG.4; 435/DIG.14; 435/DIG.15; 435/DIG.17
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 71 OF 88 USPATFULL on STN
 AN 2002:39765 USPATFULL
 TI Interaction between ***cyclin*** D1 and steroid receptor
 coactivators and users thereof in assays
 IN Bernards, Rene, Alcoude, NETHERLANDS
 Zwijnen, Renate, Utrecht, NETHERLANDS
 PA Prolifix Limited, Abingdon, UNITED KINGDOM (non-U.S. corporation)
 PI US 6350572 B1 20020226
 AI US 1999-302305 19990430 (9)
 RLI Continuation of Ser. No. WO 1999-GB440, filed on 12 Feb 1999
 PRAI GB 1998-3035 19980212
 GB 1998-18243 19980820
 DT Utility
 FS GRANTED
 LN.CNT 1540
 INCL INCLM: 435/004.000
 INCLS: 435/007.100; 435/007.210; 435/007.200; 435/007.230; 435/007.800;
 435/041.000; 435/069.100; 435/069.400; 435/069.700; 435/070.100;
 435/070.300
 NCL NCLM: 435/004.000
 NCLS: 435/007.100; 435/007.200; 435/007.210; 435/007.230; 435/007.800;
 435/041.000; 435/069.100; 435/069.400; 435/069.700; 435/070.100;
 435/070.300
 IC [7]
 ICM: C12N015-09
 ICS: C12N015-16; C12Q001-00; C12Q001-02
 EXF 435/4; 435/7.1; 435/7.2; 435/7.21; 435/7.23; 435/7.8; 435/41; 435/69.1;
 435/69.4; 435/69.7; 435/70.1; 435/70.3
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 72 OF 88 Elsevier BIOBASE COPYRIGHT 2004 Elsevier Science B.V.
 on STN
 AN 2002258759 ESBIOBASE
 TI Protein transduction: A novel tool for tissue regeneration
 AU Cardoso M.C.; Leonhardt H.
 CS M.C. Cardoso, Max Delbrück Center Mol. Med., D-13125 Berlin, Germany.
 SO Biological Chemistry, (01 OCT 2002), 383/10 (1593-1599), 46 reference(s)
 CODEN: BICHF3 ISSN: 1431-6730
 DT Journal; Article
 CY Germany, Federal Republic of
 LA English
 SL English

L5 ANSWER 73 OF 88 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2001:115309 CAPLUS
 DN 134:158512
 TI Multiple gene-containing vectors for gene therapy of tumors
 IN Tiemann, Frank
 PA Hepavec A.-G. fur Gentherapie, Germany
 SO PCT Int. Appl., 16 pp.
 CODEN: PIXXD2

DT Patent
 LA German
 FAN.CNT 1
 PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2001011063 A2 20010215 WO 2000-DE2726 20000810
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
 CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
 ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
 LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
 SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU,
 ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,

DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
DE 10039844 A1 20010419 DE 2000-10039844 20000810
PRAI DE 1999-19937308 A 19990810

L5 ANSWER 74 OF 88 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:45029 CAPLUS

DN 134:91095

TI Method for tissue regeneration using fusion proteins

IN Leonhardt, Heinrich; Cardoso, Cristina M.

PA Max-Delbrueck-Centrum fuer Molekulare Medizin, Germany

SO Ger. Offen., 4 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|------------------|----------|
| PI | DE 19933089 | A1 | 20010118 | DE 1999-19933089 | 19990715 |
| | WO 2001005418 | A2 | 20010125 | WO 2000-DE2258 | 20000712 |
| | WO 2001005418 | A3 | 20010719 | | |
| | W: JP, US | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | EP 1198240 | A2 | 20020424 | EP 2000-954316 | 20000712 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY | | | | |
| | JP 2003504411 | T2 | 20030204 | JP 2001-510472 | 20000712 |
| PRAI | DE 1999-19933089 | A | 19990715 | | |
| | WO 2000-DE2258 | W | 20000712 | | |

L5 ANSWER 75 OF 88 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

AN 2002:261533 BIOSIS

DN PREV200200261533

TI Tob increases the threshold of T cell activation and functions as a negative regulator of cell cycle progression and cytokine transcription.

AU Tzachanis, Dimitrios [Reprint author]; Freeman, Gordon J. [Reprint author]; Hirano, Naoto [Reprint author]; van Puijenbroek, Andreas A. F. L. [Reprint author]; Delfs, Micahel W.; Berezovskaya, Alla [Reprint author];

CS Nadler, Lee M. [Reprint author]; Boussiotis, Vassiliki A. [Reprint author] Adult Oncology, Dana-Farber Cancer Institute, Harvard Medical School, Boston, MA, USA

SO Blood, (November 16, 2001) Vol. 98, No. 11 Part 1, pp. 818a. print.

Meeting Info.: 43rd Annual Meeting of the American Society of Hematology, Part 1. Orlando, Florida, USA. December 07-11, 2001. American Society of Hematology.

CODEN: BLOOAW. ISSN: 0006-4971.

DT Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LA English

ED Entered STN: 1 May 2002

Last Updated on STN: 1 May 2002

L5 ANSWER 76 OF 88 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN

AN 2000-08342 BIOTECHDS

TI New vector useful for increasing transfection efficiencies comprises a nucleic acid sequence encoding a transport protein and at least one nucleic acid sequence to be transported;

Herpes simplex virus ***VP22***, green fluorescent protein and tet repressor fusion protein gene transfer and expression in animal cell by lipofection or electroporation

AU Sczakiel G

PA Mueller-Bore and Partner

LO Heidelberg, Germany.

PI DE 1045420 13 Apr 2000

AI DE 1998-1045420 2 Oct 1998

PRAI DE 1998-1045420 2 Oct 1998

DT Patent

LA German

OS WPI: 2000-294045 [26]

L5 ANSWER 77 OF 88 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:401851 CAPLUS

DN 133:53685

TI Protein transduction system and methods of use thereof

IN Dowdy, Steven F.

PA Washington University, USA
SO PCT Int. Appl., 127 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2000034308 | A2 | 20000615 | WO 1999-US29289 | 19991210 |
| | WO 2000034308 | A3 | 20001019 | | |
| | W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | AU 2000021728 | A1 | 20000626 | AU 2000-21728 | 19991210 |
| | EP 1137664 | A2 | 20011004 | EP 1999-966101 | 19991210 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | JP 2002531113 | T2 | 20020924 | JP 2000-586751 | 19991210 |
| PRAI | US 1998-111701P | P | 19981210 | | |
| | WO 1999-US29289 | W | 19991210 | | |
| OS | MARPAT 133:53685 | | | | |

L5 ANSWER 78 OF 88 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:98338 CAPLUS

DN 132:117530

TI Cdk inhibitors as inhibitors of herpesvirus gene expression, replication and pathogenesis

IN Schang, Luis M.; Schaffer, Priscilla A.; Jordan, Robert

PA The Trustees of the University of Pennsylvania, USA

SO PCT Int. Appl., 159 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 4

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 2000006170 | A1 | 20000210 | WO 1999-US16252 | 19990716 |
| | W: AU, CA, JP, US | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | AU 9951116 | A1 | 20000221 | AU 1999-51116 | 19990716 |
| | US 2003049602 | A1 | 20030313 | US 2000-905689 | 20001206 |
| | US 2003060457 | A1 | 20030327 | US 2000-905695 | 20001206 |
| | US 2003099944 | A1 | 20030529 | US 2000-905687 | 20001206 |
| PRAI | US 1998-94805P | P | 19980731 | | |
| | US 1999-131264P | P | 19990427 | | |
| | US 1999-140926P | P | 19990624 | | |
| | WO 1999-US16252 | W | 19990716 | | |
| | US 2000-656592 | A2 | 20000907 | | |
| | US 2000-951058 | A2 | 20000912 | | |

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 79 OF 88 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:738773 CAPLUS

DN 133:291142

TI Control of cell cycle/cell growth with NF-.kappa.B inhibitors and methods for assessment of chemotherapy and for screening for cell cycle inhibitors

IN Kaltschmidt, Barbara; Kaltschmidt, Christian; Hehner, Steffen; Droege, Wulf; Schmitz, Lienhard

PA Germany

SO Ger. Offen., 34 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|------------------|------|----------|------------------|----------|
| PI | DE 19917084 | A1 | 20001019 | DE 1999-19917084 | 19990415 |
| PRAI | DE 1999-19917084 | | 19990415 | | |

L5 ANSWER 80 OF 88 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2001:323812 BIOSIS
DN PREV200100323812
TI Downregulation of p27kip1 by IL-7 is mandatory for induction of bcl-2, promotion of viability and cell cycle progression in T cell acute lymphoblastic leukemia cells.
AU Barata, Joao T. [Reprint author]; Cardoso, Angelo A. [Reprint author]; Keenan, Thomas [Reprint author]; Sallan, Steven; Nadler, Lee M. [Reprint author]; Boussiotis, Vassiliki A. [Reprint author]
CS Adult Oncology, Dana-Farber Cancer Institute, Boston, MA, USA
SO Blood, (November 16, 2000) Vol. 96, No. 11 Part 1, pp. 462a. print.
Meeting Info.: 42nd Annual Meeting of the American Society of Hematology. San Francisco, California, USA. December 01-05, 2000. American Society of Hematology.
CODEN: BLOOAW. ISSN: 0006-4971.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 11 Jul 2001
Last Updated on STN: 19 Feb 2002

L5 ANSWER 81 OF 88 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAY96575 Protein DGENE
TI New method for increasing the proliferative capacity of cell lines comprises administering agents reversibly activating telomerase activity and reversibly inactivating Rb/INK4 and/or p53 pathways useful in treating age related diseases
IN Hannon G J; Beach D H
PA (GENE-N) GENETICA INC.
PI WO 2000031238 A2 20000602 123p
AI WO 1999-US27907 19991124
PRAI US 1998-109891 19981125
US 1999-120549 19990217
DT Patent
LA English
OS 2000-400055 [34]
CR N-PSDB: AAA29396
DESC HSV-1 ***VP22*** polypeptide C-terminal domain.

L5 ANSWER 82 OF 88 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAY96574 Protein DGENE
TI New method for increasing the proliferative capacity of cell lines comprises administering agents reversibly activating telomerase activity and reversibly inactivating Rb/INK4 and/or p53 pathways useful in treating age related diseases
IN Hannon G J; Beach D H
PA (GENE-N) GENETICA INC.
PI WO 2000031238 A2 20000602 123p
AI WO 1999-US27907 19991124
PRAI US 1998-109891 19981125
US 1999-120549 19990217
DT Patent
LA English
OS 2000-400055 [34]
CR N-PSDB: AAA29395
DESC HSV-1 ***VP22*** polypeptide.

L5 ANSWER 83 OF 88 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAW95100 peptide DGENE
TI Fusion and chimaeric proteins including ***cyclin*** -dependent kinase binding motif - used for regulation of cell proliferation and differentiation, for treatment of, e.g. vascular injury, cancers, fibrosis and neurodegeneration
IN Beach D H; Gyuris J; Lamphere L
PA (MITO-N) MITOTIX INC.
PI WO 9906540 A2 19990211 88p
AI WO 1998-US15759 19980729
PRAI US 1997-902572 19970729
DT Patent
LA English
OS 1999-153770 [13]
CR N-PSDB: AAX26228
DESC HIV-1 ***VP22*** polypeptide C-terminal domain.

L5 ANSWER 84 OF 88 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN

AN AAW95099 Protein DGENE
TI Fusion and chimaeric proteins including ***cyclin*** -dependent kinase binding motif - used for regulation of cell proliferation and differentiation, for treatment of, e.g. vascular injury, cancers, fibrosis and neurodegeneration
IN Beach D H; Gyuris J; Lamphere L
PA (MITO-N) MITOTIX INC.
PI WO 9906540 A2 19990211 88p
AI WO 1998-US15759 19980729
PRAI US 1997-902572 19970729
DT Patent
LA English
OS 1999-153770 [13]
CR N-PSDB: AAX26227
DESC HIV-1 ***VP22*** polypeptide.

L5 ANSWER 85 OF 88 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAA29396 DNA DGENE
TI New method for increasing the proliferative capacity of cell lines comprises administering agents reversibly activating telomerase activity and reversibly inactivating Rb/INK4 and/or p53 pathways useful in treating age related diseases
IN Hannon G J; Beach D H
PA (GENE-N) GENETICA INC.
PI WO 2000031238 A2 20000602 123p
AI WO 1999-US27907 19991124
PRAI US 1998-109891 19981125
US 1999-120549 19990217
DT Patent
LA English
OS 2000-400055 [34]
CR P-PSDB: AAY96575
DESC HSV-1 ***VP22*** polypeptide c-terminal domain coding sequence.

L5 ANSWER 86 OF 88 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAA29395 DNA DGENE
TI New method for increasing the proliferative capacity of cell lines comprises administering agents reversibly activating telomerase activity and reversibly inactivating Rb/INK4 and/or p53 pathways useful in treating age related diseases
IN Hannon G J; Beach D H
PA (GENE-N) GENETICA INC.
PI WO 2000031238 A2 20000602 123p
AI WO 1999-US27907 19991124
PRAI US 1998-109891 19981125
US 1999-120549 19990217
DT Patent
LA English
OS 2000-400055 [34]
CR P-PSDB: AAY96574
DESC HSV-1 ***VP22*** polypeptide coding sequence.

L5 ANSWER 87 OF 88 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAX26227 DNA DGENE
TI Fusion and chimaeric proteins including ***cyclin*** -dependent kinase binding motif - used for regulation of cell proliferation and differentiation, for treatment of, e.g. vascular injury, cancers, fibrosis and neurodegeneration
IN Beach D H; Gyuris J; Lamphere L
PA (MITO-N) MITOTIX INC.
PI WO 9906540 A2 19990211 88p
AI WO 1998-US15759 19980729
PRAI US 1997-902572 19970729
DT Patent
LA English
OS 1999-153770 [13]
CR P-PSDB: AAW95099
DESC HIV-1 ***VP22*** polypeptide encoding DNA.

L5 ANSWER 88 OF 88 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAX26228 DNA DGENE
TI Fusion and chimaeric proteins including ***cyclin*** -dependent kinase binding motif - used for regulation of cell proliferation and differentiation, for treatment of, e.g. vascular injury, cancers, fibrosis and neurodegeneration
IN Beach D H; Gyuris J; Lamphere L

PA (MITO-N) MITOTIX INC.
PI WO 9906540 A2 19990211 88p
AI WO 1998-US15759 19980729
PRAI US 1997-902572 19970729
DT Patent
LA English
OS 1999-153770 [13]
CR P-PSDB: AAW95100
DESC HIV-1 ***VP22*** polypeptide C-terminal domain encoding DNA.

```
=> S L2 AND PY<=1999
'1999' NOT A VALID FIELD CODE
 5 FILES SEARCHED...
 7 FILES SEARCHED...
10 FILES SEARCHED...
13 FILES SEARCHED...
17 FILES SEARCHED...
'1999' NOT A VALID FIELD CODE
29 FILES SEARCHED...
'1999' NOT A VALID FIELD CODE
'1999' NOT A VALID FIELD CODE
40 FILES SEARCHED...
'1999' NOT A VALID FIELD CODE
44 FILES SEARCHED...
49 FILES SEARCHED...
'1999' NOT A VALID FIELD CODE
55 FILES SEARCHED...
59 FILES SEARCHED...
L6          195 L2 AND PY<=1999
```

=> DUP REM L6
DUPLICATE IS NOT AVAILABLE IN 'ADISINSIGHT, ADISNEWS, BIOCOMMERCE, DGENE,
DRUGMONOG2, IMSRESEARCH, FEDRIP, FOREGE, GENBANK, IMSPRODUCT, KOSMET,
MEDICONF, NUTRACEUT, PCTGEN, PHAR, PHARMAML, RDISCLOSURE, SYNTHLINE'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L6
L7 195 DUP REM L6 (0 DUPLICATES REMOVED)

=> D L7 1-195

L7 ANSWER 1 OF 195 USPATFULL on STN
AN 2003:228405 USPATFULL
TI Promoter for telomerase reverse transcriptase
IN Morin, Gregg B., Davis, CA, United States
Andrews, William H., Richmond, CA, United States
PA Geron Corporation, Menlo Park, CA, United States (U.S. corporation)
PI US 6610839 B1 20030826
WO 9814593 19980409 <--
AI US 1999-402181 19990929 (9)
WO 1997-US17885 19971001
RLI Continuation-in-part of Ser. No. US 1997-912951, filed on 14 Aug 1997
Continuation-in-part of Ser. No. US 1997-911312, filed on 14 Aug 1997,
now abandoned Continuation-in-part of Ser. No. US 1997-915503, filed on
14 Aug 1997, now abandoned
DT Utility
FS GRANTED
LN.CNT 10430
INCL INCLM: 536/024.100
INCLS: 435/194.000; 435/320.100
NCL NCLM: 536/024.100
NCLS: 435/194.000; 435/320.100
IC [7]
ICM: C07H021-04
ICS: C12N009-12; C12N015-00
EXF 435/194; 435/320.1; 536/24.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 2 OF 195 IMSDRUGNEWS COPYRIGHT 2004 IMSWORLD on STN

ACCESSION NUMBER: 1999:1564 IMSDRUGNEWS
TITLE: drug delivery system, ***VP22*** herpesvirus protein
Phogen agreement extended
SOURCE: R&D Focus Drug News (***7 Jun 1999***).
WORD COUNT: 38

L7 ANSWER 3 OF 195 MEDLINE on STN
AN 2000008734 MEDLINE
DN 20008734 PubMed ID: 10543389
TI Can ***VP22*** resurrect gene therapy?.
CM Comment on: J Mol Med. 1999 Aug;77(8):609-13
AU Luft F C
CS Franz-Volhard-Klinik, Humboldt University of Berlin, Berlin-Buch, Germany.. Luft@fvk-berlin.de
SO JOURNAL OF MOLECULAR MEDICINE, ***(1999 Aug)*** 77 (8) 575-6.
CY GERMANY: Germany, Federal Republic of
DT Commentary
LA English
FS Priority Journals
EM 199911
ED Entered STN: 20000111
Last Updated on STN: 20000111
Entered Medline: 19991118

L7 ANSWER 4 OF 195 PHIN COPYRIGHT 2004 PJB on STN

AN 1999:2652 PHIN
DN S00609030
DED 22 Jan 1999
TI New gene therapy techniques
SO Scrip (***1999***) No. 2405 p22
DT Newsletter
FS FULL

L7 ANSWER 5 OF 195 PHIN COPYRIGHT 2004 PJB on STN

AN 1999:19715 PHIN
DN S00644158
DED 17 Nov 1999
TI Cantab ahead of budget at nine months
SO Scrip (***1999***) No. 2490 p15
DT Newsletter
FS FULL

L7 ANSWER 6 OF 195 PHIN COPYRIGHT 2004 PJB on STN

AN 1999:9623 PHIN
DN S00623580
DED 26 May 1999
TI Phagen joint venture to receive more funding
SO Scrip (***1999***) No. 2440 p14
DT Newsletter
FS FULL

L7 ANSWER 7 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1999:331352 PROMT
TITLE: Phagen Receives Extended Funding to Continue Drug Delivery Program.
SOURCE: PR Newswire, (***20 May 1999***) pp. 4072.
PUBLISHER: PR Newswire Association, Inc.
DOCUMENT TYPE: Newsletter
LANGUAGE: English
WORD COUNT: 936
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 8 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1999:331351 PROMT
TITLE: Cantab Pharmaceuticals Reports First Quarter Financial Results and Significant Progress in Key Development Programs.
SOURCE: PR Newswire, (***20 May 1999***) pp. 4071.
PUBLISHER: PR Newswire Association, Inc.
DOCUMENT TYPE: Newsletter
LANGUAGE: English
WORD COUNT: 1541
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 9 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1999:141589 PROMT
TITLE: Cantab Reports 1998 Fourth Quarter and Year End Financial Results and Corporate Review of Progress.
SOURCE: PR Newswire, (***9 Mar 1999***) pp. 1400.
PUBLISHER: PR Newswire Association, Inc.
DOCUMENT TYPE: Newsletter
LANGUAGE: English
WORD COUNT: 1986
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 10 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1999:732888 PROMT
TITLE: Cantab Reports Third Quarter Financial Results Ahead of Budget.
SOURCE: PR Newswire, (***10 Nov 1999***) pp. 1097.
PUBLISHER: PR Newswire Association, Inc.
DOCUMENT TYPE: Newsletter
LANGUAGE: English
WORD COUNT: 1841
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 11 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1999:340020 PROMT
TITLE: Cantab making "significant progress".
SOURCE: Marketletter, (***24 May 1999***) .
ISSN: 0951-3175.
PUBLISHER: Marketletter Publications Ltd.
DOCUMENT TYPE: Newsletter
LANGUAGE: English
WORD COUNT: 228
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 12 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1999:399865 PROMT
TITLE: Enhancement of Mucosal Immune Responses to HIV Gp160.
SOURCE: Vaccine Weekly, (***14 Jun 1999***) .
ISSN: 1074-2921.
PUBLISHER: Charles W. Henderson
DOCUMENT TYPE: Newsletter
LANGUAGE: English
WORD COUNT: 417
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 13 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2000:277810 BIOSIS
DN PREV200000277810
TI Herpesvirus pre-(viral DNA replication) enveloped particles.
AU Dargan, Derrick James [Inventor, Reprint author]; Patel, Arvind Hirabhai [Inventor]; Subak-Sharpe, John Herbert [Inventor]
CS Glasgow, UK
PI ASSIGNEE: Medical Research Council
US 5994116 November 30, 1999
SO Official Gazette of the United States Patent and Trademark Office Patents, (Nov. 30, 1999) Vol. 1228, No. 5. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent
LA English
ED Entered STN: 6 Jul 2000
Last Updated on STN: 7 Jan 2002

L7 ANSWER 14 OF 195 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:753364 CAPLUS
DN 131:347510
TI Gene therapy vectors utilizing recombination and their use in antitumor therapy
IN Margison, Geoffrey Paul; Marples, Brian; Scott, Simon; Hendry, Jolyon Hindson
PA Cancer Research Campaign Technology Limited, UK
SO PCT Int. Appl., 89 pp.
CODEN: PIXXD2
DT Patent
LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | WO 9960142 | A2 | 19991125 | WO 1999-GB1362 | 19990517 <-- |
| | WO 9960142 | A3 | 20000713 | | |
| | W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2374248 | AA | 19991125 | CA 1999-2374248 | 19990517 <-- |
| | AU 9939375 | A1 | 19991206 | AU 1999-39375 | 19990517 <-- |
| | AU 763714 | B2 | 20030731 | | |
| | EP 1078091 | A2 | 20010228 | EP 1999-922263 | 19990517 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI | | | | |
| | NZ 508671 | A | 20030530 | NZ 1999-508671 | 19990517 |
| PRAI | GB 1998-10423 | A | 19980515 | | |
| | WO 1999-GB1362 | W | 19990517 | | |

L7 ANSWER 15 OF 195 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:390423 CAPLUS

DN 131:39724

TI Cytotoxin fusion proteins for use in killing of cells infected by pathogens

IN Dowdy, Steven F.

PA Washington University, USA

SO PCT Int. Appl., 123 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | WO 9929721 | A1 | 19990617 | WO 1998-US26358 | 19981210 <-- |
| | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2314267 | AA | 19990617 | CA 1998-2314267 | 19981210 <-- |
| | AU 9918182 | A1 | 19990628 | AU 1999-18182 | 19981210 <-- |
| | EP 1037911 | A1 | 20000927 | EP 1998-963079 | 19981210 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| | US 6221355 | B1 | 20010424 | US 1998-208966 | 19981210 |
| | JP 2002505077 | T2 | 20020219 | JP 2000-524312 | 19981210 |
| PRAI | US 1997-69012P | P | 19971210 | | |
| | US 1998-82402P | P | 19980420 | | |
| | WO 1998-US26358 | W | 19981210 | | |

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 16 OF 195 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:166641 CAPLUS

DN 130:205911

TI Fusion proteins of transcriptional activators carrying peptides promoting cell uptake and a regulated expression system using them

IN Dowdy, Steven F.; Jesse, Joel A.

PA Washington University, USA

SO PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|--------------|
| PI | WO 9910376 | A1 | 19990304 | WO 1998-US16887 | 19980814 <-- |
| | W: CA, JP | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, | | | | |

PT, SE
EP 1005486 A1 20000607 EP 1998-939402 19980814
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, FI
JP 2001513987 T2 20010911 JP 2000-507702 19980814
US 2003040038 A1 20030227 US 1998-134793 19980814
PRAI US 1997-56713P P 19970822
WO 1998-US16887 W 19980814
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 17 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1999:345893 BIOSIS
DN PREV199900345893
TI Modified ***VP22*** localizes to the cell nucleus during synchronized
herpes simplex virus type 1 infection.
AU Pomeranz, Lisa E.; Blaho, John A. [Reprint author]
CS Department of Microbiology, Mount Sinai School of Medicine, One Gustave L.
Levy Place, New York, NY, 10029-6574, USA
SO Journal of Virology, (Aug., 1999) Vol. 73, No. 8, pp. 6769-6781. print.
CODEN: JOVIAM. ISSN: 0022-538X.
DT Article
LA English
ED Entered STN: 24 Aug 1999
Last Updated on STN: 24 Aug 1999

L7 ANSWER 18 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1999:323440 BIOSIS
DN PREV199900323440
TI Identification of phosphorylation sites within the herpes simplex virus
tegument protein ***VP22***.
AU Elliott, Gillian [Reprint author]; O'Reilly, Dawn; O'Hare, Peter
CS Virus Assembly Group, Marie Curie Research Institute, The Chart, Oxted,
Surrey, RH1 0TL, UK
SO Journal of Virology, (July, 1999) Vol. 73, No. 7, pp. 6203-6206. print.
CODEN: JOVIAM. ISSN: 0022-538X.
DT Article
LA English
ED Entered STN: 24 Aug 1999
Last Updated on STN: 24 Aug 1999

L7 ANSWER 19 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1999:238923 BIOSIS
DN PREV199900238923
TI Live-cell analysis of a green fluorescent protein-tagged herpes simplex
virus infection.
AU Elliott, Gillian [Reprint author]; O'Hare, Peter
CS Marie Curie Research Institute, The Chart, Oxted, Surrey, RH1 0TL, UK
SO Journal of Virology, (May, 1999) Vol. 73, No. 5, pp. 4110-4119. print.
CODEN: JOVIAM. ISSN: 0022-538X.
DT Article
LA English
ED Entered STN: 17 Jun 1999
Last Updated on STN: 17 Jun 1999

L7 ANSWER 20 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1999:310764 BIOSIS
DN PREV199900310764
TI ***VP22*** translocates heterologous proteins into tissue culture
cells.
AU Bennett, Robert P. [Reprint author]; Dalby, Brian [Reprint author]; Guy,
Pamela M. [Reprint author]
CS Invitrogen Corporation, Carlsbad, CA, USA
SO FASEB Journal, (April 23, 1999) Vol. 13, No. 7, pp. A1555. print.
Meeting Info.: Annual Meeting of the American Societies for Experimental
Biology on Biochemistry and Molecular Biology 99. San Francisco,
California, USA. May 16-20, 1999. American Societies for Experimental
Biology.
CODEN: FAJOEC. ISSN: 0892-6638.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 17 Aug 1999
Last Updated on STN: 17 Aug 1999

L7 ANSWER 21 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

AN 1999:298221 BIOSIS
DN PREV199900298221
TI Preliminary structural characterization of ***VP22***, a protein
expressing novel intercellular trafficking activity.
AU Kueltzo, L. [Reprint author]; O'Hare, P.; Middaugh, C. R. [Reprint author]
CS Department of Pharmaceutical Chemistry, University of Kansas, Lawrence,
KS, 66047, USA
SO FASEB Journal, (April 23, 1999) Vol. 13, No. 7, pp. A1393. print.
Meeting Info.: Annual Meeting of the American Societies for Experimental
Biology on Biochemistry and Molecular Biology 99. San Francisco,
California, USA. May 16-20, 1999. American Societies for Experimental
Biology.
CODEN: FAJOEC. ISSN: 0892-6638.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 12 Aug 1999
Last Updated on STN: 12 Aug 1999

L7 ANSWER 22 OF 195 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
AN 1999:763858 SCISEARCH
GA The Genuine Article (R) Number: 226QX
TI Preliminary structural characterization of ***VP22***, a protein
expressing novel intercellular trafficking activity
AU Kueltzo L (Reprint); OHare P; Middaugh C R
CS UNIV KANSAS, DEPT PHARMACEUT CHEM, LAWRENCE, KS 66047; MARIE CURIE RES
INST, SURREY RH8 0TL, ENGLAND
CYA USA; ENGLAND
SO FASEB JOURNAL, (***23 APR 1999***) Vol. 13, No. 7, Supp. [S], pp.
A1393-A1393.
Publisher: FEDERATION AMER SOC EXP BIOL, 9650 ROCKVILLE PIKE, BETHESDA, MD
20814-3998.
ISSN: 0892-6638.
DT Conference; Journal
FS LIFE
LA English
REC Reference Count: 0

L7 ANSWER 23 OF 195 LIFESCI COPYRIGHT 2004 CSA on STN
AN 2000:9036 LIFESCI
TI Protein therapy - delivery guaranteed
AU Bayley, H.
CS Department of medical biochemistry and genetics at the Texas A&M Health
Science Center, College Station, TX 77843-1114, USA; E-mail:
bayley@tamu.edu
SO Nature Biotechnology [Nat. Biotechnol.], (***19991100***) vol. 17, no.
11, pp. 1066-1067.
ISSN: 1087-0156.
DT Journal
TC General Review
FS W3
LA English

L7 ANSWER 24 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2000:792 BIOSIS
DN PREV200000000792
TI Direct protein transfer to terminally differentiated muscle cells.
AU Derer, Wolfgang; Easwaran, Hariharan P.; Knopf, Charles W.; Leonhardt,
Heinrich; Cardoso, M. Cristina [Reprint author]
CS Franz Volhard Clinic, Max Delbrueck Center, Wiltbergstrasse 50, D-13125,
Berlin, Germany
SO Journal of Molecular Medicine (Berlin), (Aug., 1999) Vol. 77, No. 8, pp.
609-613. print.
ISSN: 0946-2716.
DT Article
LA English
ED Entered STN: 23 Dec 1999
Last Updated on STN: 31 Dec 2001

L7 ANSWER 25 OF 195 BIOTECHNO COPYRIGHT 2004 Elsevier Science B.V. on STN
AN 1999:29479978 BIOTECHNO
TI Can ***VP22*** resurrect gene therapy?
AU Luft F.C.
CS F.C. Luft, Franz-Volhard-Klinik, Humboldt University of Berlin,
Wiltbergstrasse 50, D-13125 Berlin-Buch, Germany.
E-mail: luft@fvk-berlin.de

SO Journal of Molecular Medicine, (***1999***), 77/8 (575-576), 6
reference(s)
CODEN: JMLME8 ISSN: 0946-2716
DT Journal; (Short Survey)
CY Germany, Federal Republic of
LA English

L7 ANSWER 26 OF 195 LIFESCI COPYRIGHT 2004 CSA on STN
AN 2000:11893 LIFESCI
TI Intercellular Spread of GFP- ***VP22***
AU Aints, A.; Dilber, M.S.; Smith, C.I.E.*
CS Center for Biotechnology, Department of Biosciences at Novum, Karolinska
Institutet, Haelsovaegen 7, S-14157, Huddinge, Sweden; E-mail:
edvard.smith@cbt.ki.se
SO Journal of Gene Medicine [J. Gene Med.], (***19990800***) vol. 1, no.
4, pp. 275-279.
ISSN: 1099-498X.
DT Journal
FS W3
LA English
SL English

L7 ANSWER 27 OF 195 LIFESCI COPYRIGHT 2004 CSA on STN
AN 2000:11892 LIFESCI
TI Quantification of ***VP22*** -GFP Spread by Direct Fluorescence in 15
Commonly Used Cell Lines
AU Wybranietz, W.A.; Prinz, F.; Spiegel, M.; Schenk, A.; Bitzer, M.; Gregor,
M.; Lauer, U.M.
CS Internal Medicine I, Medical University Clinic Tuebingen, Otfried
Mueller-Str. 10, D-72076 Tuebingen, Germany; E-mail:
wolfgang.wybranietz@uni-tuebingen.de
SO Journal of Gene Medicine [J. Gene Med.], (***19990800***) vol. 1, no.
4, pp. 265-274.
ISSN: 1099-498X.
DT Journal
FS W3
LA English
SL English

L7 ANSWER 28 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1999:100567 BIOSIS
DN PREV199900100567
TI Intercellular trafficking of ***VP22*** -GFP fusion proteins.
AU Elliott, G.; O'Hare, P. [Reprint author]
CS Marie Curie Res. Inst., The Chart, Surrey RH8 OTL, UK
SO Gene Therapy, (Jan., 1999) vol. 6, No. 1, pp. 149-151. print.
ISSN: 0969-7128.
DT Article
LA English
ED Entered STN: 4 Mar 1999
Last Updated on STN: 4 Mar 1999

L7 ANSWER 29 OF 195 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
AN 1999-05246 BIOTECHDS
TI Intercellular trafficking of ***VP22*** -GFP fusion proteins;
VP22 -green fluorescent protein fusion protein with the
ability to mediate intercellular protein transport
AU Elliot G; *O'Hare P
CS Marie-Curie-Res.Inst.Oxted
LO Marie Curie Research Institute, The Chart, Oxted, Surrey RH8 OTL, UK.
SO Gene Ther.; (***1999***) 6, 1, 149-51
CODEN: GETHEC ISSN: 0969-7128
DT Journal
LA English

L7 ANSWER 30 OF 195 CEABA-VTB COPYRIGHT 2004 DECHEMA on STN
AN 1999(06):5040 CEABA-VTB FS B
DN CEABA: 1999:3212891
TI Phogen's herpes protein technology boosts anticancer gene therapy
CS Phogen, Cambridge, UK
SO Pharm. Bus. News (***1999***) 15(334), p.26
CODEN: PBNEEH ISSN: 0956-0661
DT Journal
LA English

L7 ANSWER 31 OF 195 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN

AN 1999:137239 SCISEARCH
GA The Genuine Article (R) Number: 165CH
TI European drug news - In vivo potential for ***VP22*** in gene therapy shown
AU Fox S
SO GENETIC ENGINEERING NEWS, (***1 FEB 1999***) vol. 19, No. 3, pp. 20-&. Publisher: MARY ANN LIEBERT INC PUBL, 2 MADISON AVENUE, LARCHMONT, NY 10538.
ISSN: 0270-6377.
DT Article; Journal
LA English
REC Reference Count: 0

L7 ANSWER 32 OF 195 CIN COPYRIGHT 2004 ACS on STN
AN 28(5):4140W CIN
TI Other research news
SO BioCentury, 18 Jan 1999 (19990118), 7(5, Pt. 2), p. B16. ISSN: 1097-7201; CODEN: BICEFS.
LA English

L7 ANSWER 33 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1999:97745 BIOSIS
DN PREV199900097745
TI Intercellular delivery of thymidine kinase prodrug activating enzyme by the herpes simplex virus protein, ***VP22***.
AU Dilber, M. S.; Phelan, A.; Aints, A.; Mohamed, A. J.; Elliott, G.; Smith, C. I. Edvard; O'Hare, P. [Reprint author]
CS Marie Curie Res. Inst., The Chart, Oxted, Surrey RH8 0TL, UK
SO Gene Therapy, (Jan., 1999) vol. 6, No. 1, pp. 12-21. print.
ISSN: 0969-7128.
DT Article
LA English
ED Entered STN: 4 Mar 1999
Last Updated on STN: 4 Mar 1999

L7 ANSWER 34 OF 195 BIOTECHNO COPYRIGHT 2004 Elsevier Science B.V. on STN
AN 1999:29043687 BIOTECHNO
TI Catch ***VP22*** : The hitch-hiker's ride to gene therapy?
AU Murphy A.L.; Murphy S.J.
SO Gene Therapy, (***1999***), 6/1 (4-5), 7 reference(s)
CODEN: GETHEC ISSN: 0969-7128
DT Journal; (Short Survey)
CY United Kingdom
LA English

L7 ANSWER 35 OF 195 CIN COPYRIGHT 2004 ACS on STN
AN 28(23):23048P CIN
TI Deals
SO BioCentury, 24 May 1999 (19990524), 7(30, Pt. 2), p. B3. ISSN: 1097-7201; CODEN: BICEFS.
LA English

L7 ANSWER 36 OF 195 IMSDRUGNEWS COPYRIGHT 2004 IMSWORLD on STN

ACCESSION NUMBER: 1998:1629 IMSDRUGNEWS
TITLE: drug delivery system, ***VP22*** herpesvirus protein
Phogen preclinical data
SOURCE: R&D Focus Drug News (***25 May 1998***).
WORD COUNT: 179

L7 ANSWER 37 OF 195 PHIN COPYRIGHT 2004 PJB on STN

AN 1998:11262 PHIN
DN B00583792
DED 1 Jun 1998
TI Research and Clinical Progress: Phogen Ltd
SO Bioventure-View (***1998***) No. 1406 p30
DT Newsletter
FS FULL

L7 ANSWER 38 OF 195 PHIN COPYRIGHT 2004 PJB on STN

AN 1998:9688 PHIN
DN S00580586
DED 15 May 1998
TI Cantab's ***VP22*** shows early promise

SO Scrip (***1998***) No. 2335 p29
DT Newsletter
FS FULL

L7 ANSWER 39 OF 195 PHIN COPYRIGHT 2004 PJB on STN

AN 1998:15871 PHIN
DN B00592838
DED 1 Jul 1998
TI ReqMed Co.: Japanese Entrepreneurial Spirit Takes a First Step
SO Bioventure-View (***1998***) No. 1307 p18
DT Newsletter
FS FULL

L7 ANSWER 40 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1998:591203 PROMT
TITLE: Cantab Reports Third Quarter Financial Results - Company
makes progress in key clinical programs -.
SOURCE: PR Newswire, (***12 Nov 1998***) pp. 1402.
LANGUAGE: English
WORD COUNT: 1591
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 41 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1998:497629 PROMT
TITLE: Recognition of Herpes Simplex Virus Type 2 Tegument
Proteins by CD4 T Cells Infiltrating Human Genital Herpes
Lesions.
SOURCE: Vaccine Weekly, (***21 Sep 1998***) pp. NA.
ISSN: 1074-2921.
LANGUAGE: English
WORD COUNT: 289
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 42 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1998:175690 PROMT
TITLE: DEVELOPMENTS IN BIOTECHNOLOGY :Cantab-Reports Year-End
Results - A Year Of Solid Progress
SOURCE: BioAccess, (***1 Apr 1998***) pp. N/A.
ISSN: 1356-3432.
LANGUAGE: English
WORD COUNT: 681
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 43 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1998:451675 PROMT
TITLE: Joined for strength
SOURCE: Med Ad News, (***Aug 1998***) pp. 26.
ISSN: 0745-0907.
LANGUAGE: English
WORD COUNT: 3198
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 44 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1998:237110 PROMT
TITLE: Phogen Signs First Commercial Deal
SOURCE: Marketletter, (***4 May 1998***) pp. N/A.
ISSN: 0951-3175.
LANGUAGE: English
WORD COUNT: 59
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 45 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1998:109999 PROMT
TITLE: Cantab Pharmaceuticals Reports Year-End Results; Company
Turns in a Year of Solid Progress Across All Business Areas
SOURCE: PR Newswire, (***2 Mar 1998***) pp. 0302NYM022.
LANGUAGE: English
WORD COUNT: 1474
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 46 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1998:633293 PROMT
TITLE: Cantab On Track To Being A Fully Integrated Company.
SOURCE: Marketletter, (***7 Dec 1998***) pp. NA.
ISSN: 0951-3175.
LANGUAGE: English
WORD COUNT: 1655
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 47 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1998:382725 PROMT
TITLE: New Faces, New Names
SOURCE: BioPharm, (***Jul 1998***) pp. 10.
ISSN: 1040-8304.
LANGUAGE: English
WORD COUNT: 154
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 48 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1998:237169 PROMT
TITLE: Stock Commentary Europe
SOURCE: Marketletter, (***18 May 1998***) pp. N/A.
ISSN: 0951-3175.
LANGUAGE: English
WORD COUNT: 337
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 49 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1998:577595 PROMT
TITLE: UK Biotech Firms Back In Vogue With Investors?
SOURCE: Marketletter, (***9 Nov 1998***) pp. NA.
ISSN: 0951-3175.
LANGUAGE: English
WORD COUNT: 1444
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 50 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1998:264243 PROMT
TITLE: drug delivery system, ***VP22*** herpesvirus protein
Phogen preclinical data
SOURCE: Preclinical results of Phogen's treatment reported
R & D Focus Drug News, (***25 May 1998***) pp. N/A.
ISSN: 1350-1135.
LANGUAGE: English
WORD COUNT: 196
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 51 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1998:262791 PROMT
TITLE: Cantab Reports Solid Progress During 1st Qtr
SOURCE: Marketletter, (***1 Jun 1998***) pp. N/A.
ISSN: 0951-3175.
LANGUAGE: English
WORD COUNT: 248
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 52 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1998:295529 PROMT
TITLE: Delivering p53 with Herpesvirus Protein
SOURCE: Applied Genetics News, (***1 Jun 1998***) pp. N/A.
ISSN: 0271-7107.
LANGUAGE: English
WORD COUNT: 334
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 53 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 1998:208184 PROMT

TITLE: Phogen and Invitrogen Collaborate to Market ***VP22***
Reagents
SOURCE: PR Newswire, (***27 Apr 1998***) pp. 0427NYM008.
LANGUAGE: English
WORD COUNT: 806
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 54 OF 195 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
AN 1999-02756 BIOTECHDS
TI Subunit vaccine containing ***VP22*** polypeptide of herpes simplex
virus;
herpes simplex virus recombinant ***VP22*** protein preparation,
virus vector-mediated gene transfer and expression in host cell, used
for infection recombinant vaccine or nucleic acid vaccine
AU Burke R L; Tigges M A
PA Chiron
LO Emeryville, CA, USA.
PI WO 9855145 ***10 Dec 1998***
AI WO 1998-US10664 26 May 1998
PRAI US 1997-47359 2 Jun 1997
DT Patent
LA English
OS WPI: 1999-059878 [05]

L7 ANSWER 55 OF 195 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
AN 1999-01646 BIOTECHDS
TI Using baculo virus to deliver nucleic acid to hepatocytes;
thymidine-kinase gene transfer, antisense and ribozyme for virus
infection and liver cancer gene therapy
AU McGarvey M J; Thomas H C
PA Imperial-Coll.Innovations
LO London, UK.
PI WO 9848842 ***5 Nov 1998***
AI WO 1998-GB1249 29 Apr 1998
PRAI GB 1997-8698 29 Apr 1997
DT Patent
LA English
OS WPI: 1999-009390 [01]

L7 ANSWER 56 OF 195 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
AN 1998-11220 BIOTECHDS
TI Use of the microtubule binding function and transport properties of
herpes virus ***VP22*** protein;
to study and manipulate mammal cell structure, growth, division and
death in vitro and in vivo
AU Elliot G D
PA Phogen
LO Cambridge, UK.
PI WO 9842742 ***1 Oct 1998***
AI WO 1998-GB873 23 Mar 1998
PRAI GB 1997-5903 21 Mar 1997
DT Patent
LA English
OS WPI: 1998-531948 [45]

L7 ANSWER 57 OF 195 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
AN 1998-09556 BIOTECHDS
TI New coupled or fusion polypeptides;
herpes virus ***VP22*** protein and p53 fusion protein preparation
by plasmid p49532p+10 vector expression in microorganism or mammal
cell, used for disease therapy or gene therapy, etc.
AU O'Hare P F J; Elliott G D
PA Marie-Curie-Cancer-Care
LO London, UK.
PI WO 9832866 ***30 Jul 1998***
AI WO 1998-GB207 23 Jan 1998
PRAI GB 1997-16398 1 Aug 1997; GB 1997-1363 23 Jan 1997
DT Patent
LA English
OS WPI: 1998-427962 [36]

L7 ANSWER 58 OF 195 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
AN 1998-04880 BIOTECHDS
TI New antiviral agent against herpes, disrupts binding of ***VP22*** to
VP16 or gB;
virucide causing disruption of herpes simplex virus type-1 protein

association
 AU McLaughlan J; McGeoch D J; Hope R G; Rixon H W M
 PA Med.Res.Counc.
 LO London, UK.
 PI WO 9804708 ***5 Feb 1998***
 AI WO 1997-GB2036 28 Jul 1997
 PRAI GB 1996-15726 26 Jul 1996
 DT Patent
 LA English
 OS WPI: 1998-130696 [12]

L7 ANSWER 59 OF 195 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1998:621324 CAPLUS
 DN 129:240848
 TI Increasing the efficiency of uptake of transforming DNA complexes with polycations using peptides
 IN Hawley-Nelson, Pamela; Lan, Jianqing; Shih, Pojen; Jesse, Joel A.; Ciccarone, Valentina C.; Evans, Krista L.; Schifferli, Kevin P.; Gebeyehu, Guilitat
 PA Life Technologies, Inc., USA
 SO PCT Int. Appl., 105 pp.
 CODEN: PIXXD2
 DT Patent
 LA English

FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | WO 9840502 | A1 | 19980917 | WO 1998-US5232 | 19980316 <-- |
| | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | US 6051429 | A | 20000418 | US 1997-818200 | 19970314 |
| | AU 9865622 | A1 | 19980929 | AU 1998-65622 | 19980316 <-- |
| | EP 1007699 | A1 | 20000614 | EP 1998-911737 | 19980316 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| PRAI | JP 2001517939 | T2 | 20011009 | JP 1998-539899 | 19980316 |
| | US 1997-818200 | A | 19970314 | | |
| | US 1995-477354 | B2 | 19950607 | | |
| | US 1996-658130 | A2 | 19960604 | | |
| | WO 1998-US5232 | W | 19980316 | | |

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 60 OF 195 USPATFULL on STN
 AN 1998:59111 USPATFULL
 TI Programming which can make threshold voltages of programmed memory cells have a narrow distribution in a nonvolatile semiconductor memory
 IN Takeshima, Toshio, Tokyo, Japan
 Sugawara, Hiroshi, Tokyo, Japan
 PA NEC Corporation, Tokyo, Japan (non-U.S. corporation)
 PI US 5757699 19980526 <--
 AI US 1997-862965 19970603 (8)
 PRAI JP 1996-140497 19960603
 DT Utility
 FS Granted
 LN.CNT 817
 INCL INCLM: 365/185.240
 INCLS: 365/185.220; 365/185.190; 365/185.030
 NCL NCLM: 365/185.240
 NCLS: 365/185.030; 365/185.190; 365/185.220
 IC [6]
 ICM: G11C007-00
 EXF 365/185.24; 365/185.21; 365/185.19; 365/185.03

L7 ANSWER 61 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
 AN 1998:405088 BIOSIS
 DN PREV199800405088
 TI Recognition of herpes simplex virus type 2 tegument proteins by CD4 T cells infiltrating human genital herpes lesions.
 AU Koelle, David M. [Reprint author]; Frank, Jeannine M.; Johnson, Matthew

CS L.; Kwok, William W.
Fred Hutchinson Cancer Res. Center, Room D3-100, 1100 Fairview Ave. North,
P.O. Box 19024, Seattle, WA 98109, USA
SO Journal of Virology, (Sept., 1998) Vol. 72, No. 9, pp. 7476-7483. print.
CODEN: JOVIAM. ISSN: 0022-538X.
DT Article
LA English
ED Entered STN: 21 Sep 1998
Last Updated on STN: 21 Sep 1998

L7 ANSWER 62 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1998:411472 BIOSIS
DN PREV199800411472
TI Phosphorylation of structural components promotes dissociation of the
herpes simplex virus type 1 tegument.
AU Morrison, Ewan E.; Wang, Yi-Fen; Meredith, David M. [Reprint author]
CS Molecular Med. Unit, Univ. Leeds, Clinical Sci. Build., St. James Univ.
Hosp., Leeds LS9 7TF, UK
SO Journal of Virology, (Sept., 1998) Vol. 72, No. 9, pp. 7108-7114. print.
CODEN: JOVIAM. ISSN: 0022-538X.
DT Article
LA English
ED Entered STN: 21 Sep 1998
Last Updated on STN: 21 Sep 1998

L7 ANSWER 63 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1998:372651 BIOSIS
DN PREV199800372651
TI Herpes simplex virus type 1 tegument protein ***VP22*** induces the
stabilization and hyperacetylation of microtubules.
AU Elliott, Gillian [Reprint author]; O'Hare, Peter
CS Marie Curie Res. Inst., Chart, Oxted, Surrey RH8 0TL, UK
SO Journal of Virology, (Aug., 1998) Vol. 72, No. 8, pp. 6448-6455. print.
CODEN: JOVIAM. ISSN: 0022-538X.
DT Article
LA English
ED Entered STN: 27 Aug 1998
Last Updated on STN: 27 Aug 1998

L7 ANSWER 64 OF 195 LIFESCI COPYRIGHT 2004 CSA on STN
AN 1998:92608 LIFESCI
TI Herpes simplex virus type 1 tegument protein ***VP22*** induces the
stabilization and hyperacetylation of microtubules
AU Elliott, G.; O'Hare, P.
CS Marie Curie Research Institute, The Chart, Oxted, Surrey RH8 0TL, United
Kingdom.
SO J. Virol., (***19980800***) vol. 72, no. 8, pp. 6406-6413.
ISSN: 0022-538X.
DT Journal
FS V
LA English
SL English

L7 ANSWER 65 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1998:490859 BIOSIS
DN PREV199800490859
TI Differences in the intracellular localization and fate of herpes simplex
virus tegument proteins early in the infection of Vero cells.
AU Morrison, Ewan E.; Steven, Alex J.; Wang, Yi-Fen; Meredith, David M.
[Reprint author]
CS Mol. Med. Unit, Univ. Leeds, St. James's Univ. Hosp., Beckett St., Leeds
LS9 7TF, UK
SO Journal of General Virology, (Oct., 1998) Vol. 79, No. 10, pp. 2517-2528.
print.
CODEN: JGVIAY. ISSN: 0022-1317.
DT Article
LA English
ED Entered STN: 18 Nov 1998
Last Updated on STN: 18 Nov 1998

L7 ANSWER 66 OF 195 LIFESCI COPYRIGHT 2004 CSA on STN
AN 1999:24068 LIFESCI
TI Transduction of full-length TAT fusion proteins into mammalian cells:
TAT-p27 super(Kip1) induces cell migration
AU Nagahara, Hikaru; Vocero-Akbani, A.M.; Snyder, E.L.; Ho, A.; Latham, D.G.;
Lissy, N.A.; Becker-Hapak, M.; Ezhevsky, S.A.; Dowdy, S.F.*

CS Howard Hughes Medical Institute and Division of Molecular Oncology, Depts of Pathology and Medicine, Washington University School of Medicine, St. Louis, MO 63110, USA; E-mail: dowdy@pathology.wustl.edu
SO Nature Medicine, (***19981200***) vol. 4, no. 12, pp. 1449-1452.
ISSN: 1078-8956.
DT Journal
FS W3
LA English

L7 ANSWER 67 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1998:510496 BIOSIS
DN PREV199800510496
TI Intercellular trafficking of ***VP22*** -GFP fusion proteins is not observed in cultured mammalian cells.
AU Fang, B. [Reprint author]; Xu, B.; Koch, P.; Roth, J. A.
CS Sect. Mol. Oncol., Dep. Thoracic and Cardiovasc. Surg., Univ. Tex. M.D. Anderson Cancer Cent., Box 109, 1515 Holcombe Boulevard, Houston, TX 77030, USA
SO Gene Therapy, (Oct., 1998) vol. 5, No. 10, pp. 1420-1424. print.
ISSN: 0969-7128.
DT Article
LA English
ED Entered STN: 18 Dec 1998
Last Updated on STN: 18 Dec 1998

L7 ANSWER 68 OF 195 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
AN 1998:312179 SCISEARCH
GA The Genuine Article (R) Number: ZH354
TI C-type lectin-like receptors in peptide-specific HLA class I-restricted cytotoxic T lymphocytes: differential expression and modulation of effector functions in clones sharing identical TCR structure and epitope specificity
AU Noppen C (Reprint); Schaefer C; Zajac P; Schutz A; Kocher T; Kloth J; Heberer M; Colonna M; DeLibero G; Spagnoli G C
CS UNIV BASEL, DEPT SURG, DIV RES, HEBELSTR 20, CH-4031 BASEL, SWITZERLAND (Reprint); BASEL INST IMMUNOL, BASEL, SWITZERLAND; UNIV BASEL, DEPT RES, BASEL, SWITZERLAND
CYA SWITZERLAND
SO EUROPEAN JOURNAL OF IMMUNOLOGY, (***APR 1998***) vol. 28, No. 4, pp. 1134-1142.
Publisher: VCH PUBLISHERS INC, 303 NW 12TH AVE, DEERFIELD BEACH, FL 33442-1788.
ISSN: 0014-2980.
DT Article; Journal
FS LIFE
LA English
REC Reference Count: 29
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L7 ANSWER 69 OF 195 BIOTECHNO COPYRIGHT 2004 Elsevier Science B.V. on STN
AN 1998:29043337 BIOTECHNO
TI New strategies for the genetic therapy of primary liver carcinoma
AU Lauer U.; Spiegel M.; Bitzer M.; Wybranietz W.A.; Gross Ch.D.; Prinz F.; Graepel F.; Neubert W.J.; Gregor M.
CS Dr. U. Lauer, Abteilung Innere Medizin I, Med. Universitatsklinik Tübingen, Otfried-Müller-Str. 10, D-72076 Tübingen, Germany.
SO Minimally Invasive Therapy and Allied Technologies, (***1998***), 7/6 (567-571), 26 reference(s)
CODEN: MITAFI ISSN: 1364-5706
DT Journal; Article
CY United Kingdom
LA English
SL English

L7 ANSWER 70 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1998:343853 BIOSIS
DN PREV199800343853
TI Intercellular delivery of functional p53 by the herpesvirus protein ***VP22*** .
AU Phelan, Anne; Elliott, Gill; O'Hare, Peter [Reprint author]
CS Marie Curie Res. Inst., Chart, Oxted, Surrey RH8 0TL, UK
SO Nature Biotechnology, (May, 1998) Vol. 16, No. 5, pp. 440-443. print.
ISSN: 1087-0156.
DT Article
LA English
ED Entered STN: 13 Aug 1998

L7 ANSWER 71 OF 195 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
AN 1998-08690 BIOTECHDS
TI Ferrying proteins to the other side;
membrane translocating protein fusion protein for potential use in
gene therapy or as recombinant vaccine
AU Fernandez T; Bayley H
CS Univ.Texas-A+M
LO Department of Medical Biochemistry and Genetics, Texas A+M Health Science
Center, College Station, TX 77843, USA.
Email: bayley@tamu.edu
SO Nat.Biotechnol.; (***1998***) 16, 5, 418-20
CODEN: NABIF ISSN: 1087-0156
DT Journal
LA English

L7 ANSWER 72 OF 195 CEABA-VTB COPYRIGHT 2004 DEchema on STN
AN 1998(07):0028 CEABA-VTB FS B
DN CEABA: 1998:5225896
TI Invitrogen gets cell transport molecule from Phogen
CS Invitrogen, USA
SO Pharm. Bus. News (***1998***) 14(316), p.26
CODEN: PBNEEH ISSN: 0956-0661
DT Journal
LA English

L7 ANSWER 73 OF 195 CEABA-VTB COPYRIGHT 2004 DEchema on STN
AN 1998(06):5537 CEABA-VTB FS B
DN CEABA: 1998:2431892
TI Cancer gene therapy: guardian gene restored
AU Newell, J. (UK)
SO Chem. Br. (***1998***) 34(8), p.19
CODEN: CHMBAY ISSN: 0009-3106
DT Journal
LA English

L7 ANSWER 74 OF 195 CIN COPYRIGHT 2004 ACS on STN
AN 27(20):23072W CIN
TI Other research news
SO BioCentury, 4 May 1998 (19980504), 6(39, Pt. 2), p. B13. ISSN: 1097-7201;
CODEN: BICEFS.
LA English

L7 ANSWER 75 OF 195 CIN COPYRIGHT 2004 ACS on STN
AN 27(27):30609E CIN
TI Phogen's ***VP22*** tech piggy-backs proteins into target cells
SO Eur. Biotechnol. News!, 21 May 1998 (19980521), 267, p. 12. ISSN:
0765-2046; CODEN: EBNWEI.
LA English

L7 ANSWER 76 OF 195 CIN COPYRIGHT 2004 ACS on STN
AN 27(20):22759P CIN
TI Sales & marketing
SO BioCentury, 4 May 1998 (19980504), 6(39, Pt. 2), p. B6. ISSN: 1097-7201;
CODEN: BICEFS.
LA English

L7 ANSWER 77 OF 195 BIOBUSINESS COPYRIGHT 2004 BIOSIS on STN
AN 1998:53870 BIOBUSINESS
DN 1005693
TI Intercellular delivery of functional p53 by the herpesvirus protein
VP22.
AU Phelan A Elliott G O'Hare P
CS Marie Curie Res. Inst., Chart, Oxted, Surrey RH8 0TL, UK.
SO Nature Biotechnology, (***1998***) Vol.16, No.5, p.440-443.
ISSN: 1087-0156.
DT ARTICLE
FS NONUNIQUE
LA English

L7 ANSWER 78 OF 195 BIOBUSINESS COPYRIGHT 2004 BIOSIS on STN
AN 1998:48128 BIOBUSINESS
DN 0999951
TI Invitrogen gets cell transport molecule from Phogen.
AU Anon

SO Pharmaceutical Business News, (***1998***) vol.14, No.316, May 11, p.26.

ISSN: 0956-0661.

DT ARTICLE

FS UNIQUE

LA English

L7 ANSWER 79 OF 195 BIOBUSINESS COPYRIGHT 2004 BIOSIS on STN

AN 1998:44319 BIOBUSINESS

DN 0996142

TI Phogen's ***VP22*** tech piggy-backs proteins into target cells.

AU Anon

SO European Biotechnology Newsletter, (***1998***) No.267, May 21, p.12.

ISSN: 0765-2046.

DT ARTICLE

FS UNIQUE

LA English

L7 ANSWER 80 OF 195 BIOBUSINESS COPYRIGHT 2004 BIOSIS on STN

AN 1998:48224 BIOBUSINESS

DN 1000047

TI Delivering p53 with herpesvirus protein.

AU Anon

SO Applied Genetics News, (***1998***) vol.18, No.11, June, p.2.

ISSN: 0271-7107.

DT ARTICLE

FS UNIQUE

LA English

L7 ANSWER 81 OF 195 IMSDRUGNEWS COPYRIGHT 2004 IMSWORLD on STN

ACCESSION NUMBER: 97:685 IMSDRUGNEWS

TITLE: drug delivery system, ***VP22*** herpesvirus protein
Phogen Cantab, Marie Curie Cancer Care joint venture

SOURCE: R&D Focus Drug News (***10 Mar 1997***).

WORD COUNT: 110

L7 ANSWER 82 OF 195 IMSDRUGNEWS COPYRIGHT 2004 IMSWORLD on STN

ACCESSION NUMBER: 97:894 IMSDRUGNEWS

TITLE: drug delivery system, ***VP22*** herpesvirus protein
Phogen preclinical data

SOURCE: R&D Focus Drug News (***31 Mar 1997***).

WORD COUNT: 154

L7 ANSWER 83 OF 195 PHIN COPYRIGHT 2004 PJB on STN

AN 97:3906 PHIN

DN S00526786

DED 25 Feb 1997

TI Gene therapy update

SO Scrip (***1997***) No. 2209 p23

DT Newsletter

FS FULL

L7 ANSWER 84 OF 195 PHIN COPYRIGHT 2004 PJB on STN

AN 97:8845 PHIN

DN B00535906

DED 1 Apr 1997

TI Agreements - Cantab Pharmaceuticals

SO Bioventure-View (***1997***) No. 1204 p18

DT Newsletter

FS BRIEF

L7 ANSWER 85 OF 195 PHIN COPYRIGHT 2004 PJB on STN

AN 97:5606 PHIN

DN S00528886

DED 11 Mar 1997

TI Cantab Pharmaceuticals teams up with UK cancer charity

SO Scrip (***1997***) No. 2213 p10

DT Newsletter

FS FULL

L7 ANSWER 86 OF 195 PHIN COPYRIGHT 2004 PJB on STN

AN 97:13839 PHIN
DN B00546118
DED 1 Jul 1997
TI Biotech's Transatlantic Challenge BVV's Eurotour Continues
SO Bioventure-View (***1997***) No. 1207 p4
DT Newsletter
FS FULL

L7 ANSWER 87 OF 195 PHIN COPYRIGHT 2004 PJB on STN

AN 97:8623 PHIN
DN S00536364
DED 9 May 1997
TI PHARMAPROJECTS - New Formulations for week ending 2 May 1997
SO Scrip-Online-plus (***1997***)
DT Newsletter
FS FULL

L7 ANSWER 88 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 97:122260 PROMT
TITLE: Cantab Pharmaceuticals and Marie Curie Cancer Care Form New Biotechnology Company to Develop Drug Delivery Technology
SOURCE: PR Newswire, (***27 Feb 1997***) pp. 0227NYTH010.
LANGUAGE: English
WORD COUNT: 989
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 89 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 97:190488 PROMT
TITLE: Corporate Agreements:Cantab Pharmaceuticals plc
SOURCE: BioVenture View, (***1 Apr 1997***) pp. N/A.
ISSN: 0892-1903.
LANGUAGE: English
WORD COUNT: 153
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 90 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 97:355215 PROMT
TITLE: Biotech's Transatlantic Challenge --BVV's Eurotour Continues-Part 1
SOURCE: BioVenture View, (***1 Jul 1997***) pp. N/A.
ISSN: 0892-1903.
LANGUAGE: English
WORD COUNT: 4781
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 91 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 97:166243 PROMT
TITLE: Cantab Pharmaceuticals Reports Fourth Quarter Results
SOURCE: PR Newswire, (***19 Mar 1997***) pp. 0319NYW026.
LANGUAGE: English
WORD COUNT: 1474
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 92 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 97:496714 PROMT
TITLE: Biotech's Transatlantic Challenge (PART 1)
SOURCE: BioVenture View, (***1 Aug 1997***) pp. N/A.
ISSN: 0892-1903.
LANGUAGE: English
WORD COUNT: 2338
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 93 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 97:147009 PROMT
TITLE: Industry News (Joint Venture) New Company To Develop Drug Delivery Technology Against Disease
SOURCE: Disease Weekly Plus, (***10 Mar 1997***) pp. N/A.
LANGUAGE: English

WORD COUNT: 617
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 94 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 97:135685 PROMT
TITLE: Industry News (Joint Venture) New Company To Develop Drug
Delivery Technology Against Disease
SOURCE: Cancer Weekly Plus, (***10 Mar 1997***) pp. N/A.
LANGUAGE: English
WORD COUNT: 617
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 95 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 97:198204 PROMT
TITLE: Phogen JV explores potential of herpesvirus drug delivery.
This biotech co formed to develop new drug delivery means
using ***VP22*** herpesvirus protein tech
SOURCE: Genetic Engineering News, (***15 Mar 1997***) pp. 4.
ISSN: 0270-6377.
LANGUAGE: English

L7 ANSWER 96 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 97:158009 PROMT
TITLE: Cantab joins forces with MCCC to form biotech company
SOURCE: Pharmaceutical Business News, (***12 Mar 1997***) pp.
N/A.
ISSN: 0956-0661.
LANGUAGE: English
WORD COUNT: 511
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 97 OF 195 PROMT COPYRIGHT 2004 Gale Group on STN

ACCESSION NUMBER: 97:75700 PROMT
TITLE: New Discovery At Marie Curie Research Institute
SOURCE: Marketletter, (***10 Feb 1997***) pp. N/A.
ISSN: 0951-3175.
LANGUAGE: English
WORD COUNT: 56
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

L7 ANSWER 98 OF 195 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
AN 1997-06513 BIOTECHDS
TI Use of herpes simplex virus type-1 major tegument portion, ***VP22***
;
as a transport protein in a fusion protein, for tissue-specific gene
expression, using a virus vector, lipofection, transfection or
microinjection, in e.g. gene therapy

AU O'Hare P F J; Elliott G D
PA O'Hare P F J; Elliott G D
LO Oxted, UK.
PI WO 9705265 ***13 Feb 1997***
AI WO 1996-GB1831 25 Jul 1996
PRAI GB 1996-1570 26 Jan 1996; GB 1995-15568 28 Jul 1995
DT Patent
LA English
OS WPI: 1997-145701 [13]

L7 ANSWER 99 OF 195 USPATFULL on STN

AN 97:25432 USPATFULL
TI Display apparatus
IN Kawaguchi, Takafumi, Yamatotakada, Japan
Tomiyoshi, Akira, Nara, Japan
Takeda, Makoto, Nara, Japan
PA Sharp Kabushiki Kaisha, Osaka, Japan (non-U.S. corporation)
PI US 5614922 19970325 <--
AI US 1995-414717 19950331 (8)
PRAI JP 1994-66145 19940404
DT Utility
FS Granted
LN.CNT 1311
INCL INCLM: 345/089.000
INCLS: 345/094.000; 345/100.000

NCL NCLM: 345/089.000
NCLS: 345/094.000; 345/100.000
IC [6]
EXF ICM: G09G003-36
345/87; 345/89; 345/94; 345/99; 345/100; 345/150; 345/208; 345/211;
359/55; 359/56

L7 ANSWER 100 OF 195 MEDLINE on STN
AN 97414190 MEDLINE
DN 97414190 PubMed ID: 9269047
TI Study of immunogenicity and virulence of bovine herpesvirus 1 mutants
deficient in the UL49 homolog, UL49.5 homolog and dUTPase genes in cattle.
AU Liang X; Chow B; Babuik L A
CS Veterinary Infectious Disease Organization, University of Saskatchewan,
Saskatoon, Canada.
SO VACCINE, *** (1997 Jul)*** 15 (10) 1057-64.
Journal code: 8406899. ISSN: 0264-410X.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199710
ED Entered STN: 19971105
Last Updated on STN: 20020926
Entered Medline: 19971020

L7 ANSWER 101 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1997:290802 BIOSIS
DN PREV199799590005
TI Protein transport: The nonclassical ins and outs.
AU Cleves, Ann E.
CS Dep. Biochemistry Biophysics, Univ. California, San Francisco, CA
94143-0534, USA
SO Current Biology, (1997) Vol. 7, No. 5, pp. R318-R320.
CODEN: CUBLE2. ISSN: 0960-9822.
DT Article
LA English
ED Entered STN: 9 Jul 1997
Last Updated on STN: 9 Jul 1997

L7 ANSWER 102 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1997:107423 BIOSIS
DN PREV199799406626
TI Intercellular trafficking and protein delivery by a herpesvirus structural
protein.
AU Elliott, Gillian; O'Hare, Peter
CS Marie Curie Res. Inst., The Chart, Oxted, Surrey RH8 0TL, UK
SO Cell, (1997) Vol. 88, No. 2, pp. 223-233.
CODEN: CELLB5. ISSN: 0092-8674.
DT Article
LA English
ED Entered STN: 10 Mar 1997
Last Updated on STN: 10 Mar 1997

L7 ANSWER 103 OF 195 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:175378 CAPLUS
TI ***VP22*** : A new movement in protein transport
AU Marshall, Andrew; Castellino, Alexander
CS Dep. Cell Biol. Anatomy, Cornell Univ. Med. Coll., New York, NY, 10021,
USA
SO Nature Biotechnology (***1997***), 15(3), 205
CODEN: NABIF9; ISSN: 1087-0156
PB Nature Publishing Co.
DT Journal; News Announcement
LA English

L7 ANSWER 104 OF 195 CIN COPYRIGHT 2004 ACS on STN
AN 26(12):13742E CIN
TI ***VP22*** : a new movement in protein transport
SO Nat. Biotechnol., Mar 1997 (970300), 15(3), p. 205. ISSN: 1087-0156;
CODEN: NABIF9.
LA English

L7 ANSWER 105 OF 195 CEABA-VTB COPYRIGHT 2004 DEchema on STN
AN 1997(06):8691 CEABA-VTB FS B
DN CEABA: 1997:3712899

TI Hitchhiker's guide to gene therapy
CS Phogen, UK
SO Chem. Ind. (London) (****1997***) (6), p.202
CODEN: CHINAG ISSN: 0009-3068
DT Journal
LA English

L7 ANSWER 106 OF 195 CIN COPYRIGHT 2004 ACS on STN
AN 26(14):16215W CIN
TI Hitchhiker's guide to gene therapy
SO Chem. Ind. (London), 17 Mar 1997 (970317), (6), p. 202. ISSN: 0009-3068;
CODEN: CHINAG.
LA English

L7 ANSWER 107 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1997:118416 BIOSIS
DN PREV199799417619
TI The abundance of the herpes simplex virus type 1 UL37 tegument protein in
virus particles in closely controlled.
AU McLauchlan, John
CS MRC Virol. Unit, Church St., Glasgow G11 5JR, UK
SO Journal of General Virology, (1997) Vol. 78, No. 1, pp. 189-194.
CODEN: JGVIAY. ISSN: 0022-1317.
DT Article
LA English
ED Entered STN: 10 Mar 1997
Last Updated on STN: 10 Mar 1997

L7 ANSWER 108 OF 195 BIOBUSINESS COPYRIGHT 2004 BIOSIS on STN
AN 97:24738 BIOBUSINESS
DN 0882273
TI Could cold sores be gene therapy's best friend?
AU Coghlan A
SO New Scientist, (****1997***) Vol.153, No.2069, Feb. 15, P.25.
ISSN: 0262-4079.
FS UNIQUE
LA ENGLISH

L7 ANSWER 109 OF 195 CIN COPYRIGHT 2004 ACS on STN
AN 26(13):15349F CIN
TI Cantab joins forces with MCCC to form biotech company
SO Pharm. Bus. News, 12 Mar 1997 (970312), 13(287), p. 18. ISSN: 0956-0661;
CODEN: PBNEEH.
LA English

L7 ANSWER 110 OF 195 CEABA-VTB COPYRIGHT 2004 DECHEMA on STN
AN 1997(06):7870 CEABA-VTB FS B
DN CEABA: 1997:3336891
TI Phogen to focus on herpes drug delivery
CS Phogen, Cambridge, UK
SO Biotechnol. Newswatch (****1997***), p.14
ISSN: 0275-3685
DT Journal
LA English

L7 ANSWER 111 OF 195 CEABA-VTB COPYRIGHT 2004 DECHEMA on STN
AN 1997(06):4294 CEABA-VTB FS B
DN CEABA: 1997:1558891
TI Drug delivery by herpes virus protein
SO Lab. News (London) (****1997***), p.5
ISSN: 0266-7169
DT Journal
LA English

L7 ANSWER 112 OF 195 CIN COPYRIGHT 2004 ACS on STN
AN 26(13):15271Z CIN
TI Cantab forms joint venture to develop protein for drug and gene delivery
SO Biotechnol. News, 6 Mar 1997 (970306), 17(6), p. 4. ISSN: 0273-3226;
CODEN: BINWEY.
LA English

L7 ANSWER 113 OF 195 CIN COPYRIGHT 2004 ACS on STN
AN 26(18):20632X CIN
TI Phogen JV explores potential of herpesvirus drug delivery
SO Genet. Eng. News, 15 Mar 1997 (970315), 17(6), p. 4. ISSN: 0270-6377;
CODEN: GENNDX.

LA English

L7 ANSWER 114 OF 195 BIOBUSINESS COPYRIGHT 2004 BIOSIS on STN
AN 97:27599 BIOBUSINESS

DN 0885134

TI ***VP22*** : A new movement in protein transport.

AU Marshall A; Castellino A

CS Dep. Cell Biol. Anatomy, Cornell Univ. Med. Coll., 1300 York Ave., New York, NY 10021, USA.

SO Nature Biotechnology, (***1997***) Vol.15, No.3, March, p.205.
ISSN: 1087-0156.

DT ARTICLE

FS UNIQUE

LA English

L7 ANSWER 115 OF 195 BIOBUSINESS COPYRIGHT 2004 BIOSIS on STN
AN 97:30348 BIOBUSINESS

DN 0887883

TI Cantab joins forces with MCCC to form biotech company.

AU Anon

SO Pharmaceutical Business News, (***1997***) Vol.13, No.287, March 12, p.18.
ISSN: 0956-0661.

DT ARTICLE

FS UNIQUE

LA English

L7 ANSWER 116 OF 195 BIOBUSINESS COPYRIGHT 2004 BIOSIS on STN
AN 97:32996 BIOBUSINESS

DN 0890531

TI Cantab and MCCC will develop herpesvirus drug delivery.

AU Anon

SO Genetic Technology News, (***1997***) Vol.17, No.4, April, p.12.
ISSN: 0272-9032.

DT ARTICLE

FS UNIQUE

LA English

L7 ANSWER 117 OF 195 BIOBUSINESS COPYRIGHT 2004 BIOSIS on STN
AN 97:33268 BIOBUSINESS

DN 0890803

TI Phagen JV explores potential of herpesvirus drug delivery.

AU Anon

SO Genetic Engineering News, (***1997***) Vol.17, No.6, March 15, p.4.
ISSN: 0270-6377.

DT ARTICLE

FS UNIQUE

LA English

L7 ANSWER 118 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1997:30445 BIOSIS

DN PREV199799336848

TI Phosphorylation of the herpes simplex virus type 1 tegument protein

VP22

AU Elliott, Gillian [Reprint author]; O'Reilly, Dawn; O'Hare, Peter

CS Marie Curie Res. Inst., Chart, Oxted, Surrey RH8 0TL, UK

SO Virology, (1996) Vol. 226, No. 1, pp. 140-145.

CODEN: VIRLAX. ISSN: 0042-6822.

DT Article

LA English

ED Entered STN: 28 Jan 1997

Last Updated on STN: 25 Mar 1997

L7 ANSWER 119 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1996:341870 BIOSIS

DN PREV199699064226

TI Overexpression of the herpes simplex virus type 1 tegument protein

VP22 increases its incorporation into virus particles.

AU Leslie, J.; Rixon, F. J.; McLauchlan, J. [Reprint author]

CS MRC Virology Unit, Inst. Virology, Church Street, Glasgow G11 5JR, UK

SO Virology, (1996) Vol. 220, No. 1, pp. 60-68.

CODEN: VIRLAX. ISSN: 0042-6822.

DT Article

LA English

ED Entered STN: 26 Jul 1996

Last Updated on STN: 26 Jul 1996

L7 ANSWER 120 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1996:30491 BIOSIS
DN PREV199698602626

TI VP16 interacts via its activation domain with ***VP22***, a tegument protein of herpes simplex virus, and is relocated to a novel macromolecular assembly in coexpressing cells.
AU Elliott, Gillian [Reprint author]; Mouzakitis, Gerasimos; O'Hare, Peter
CS Marie Curie Res. Inst., Chart, Oxted, Surrey RH8 0TL, UK
SO Journal of Virology, (1995) vol. 69, No. 12, pp. 7932-7941.
CODEN: JOVIAM. ISSN: 0022-538X.

DT Article
LA English
ED Entered STN: 12 Jan 1996
Last Updated on STN: 12 Jan 1996

L7 ANSWER 121 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1995:364073 BIOSIS
DN PREV199598378373

TI PREPs: Herpes simplex virus type 1-specific particles produced by infected cells when viral DNA replication is blocked.
AU Dargan, D. J. [Reprint author]; Patel, A. H.; Subak-Sharpe, J. H.
CS Med. Res. Council, Virol Unit, Univ. Glasgow, Church St., Glasgow G11 5JR, UK
SO Journal of Virology, (1995) vol. 69, No. 8, pp. 4924-4932.
CODEN: JOVIAM. ISSN: 0022-538X.

DT Article
LA English
ED Entered STN: 30 Aug 1995
Last Updated on STN: 30 Aug 1995

L7 ANSWER 122 OF 195 MEDLINE on STN
AN 95264482 MEDLINE
DN 95264482 PubMed ID: 7745736

TI Characterization of bovine herpesvirus 1 UL49 homolog gene and product: bovine herpesvirus 1 UL49 homolog is dispensable for virus growth.
AU Liang X; Chow B; Li Y; Raggo C; Yoo D; Attah-Poku S; Babuuk L A
CS Veterinary Infectious Diseases Organization, University of Saskatchewan, Saskatoon, Canada.
SO JOURNAL OF VIROLOGY, *** (1995 Jun) *** 69 (6) 3863-7.
Journal code: 0113724. ISSN: 0022-538X.

CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
OS GENBANK-U21137
EM 199506
ED Entered STN: 19950621
Last Updated on STN: 19950621
Entered Medline: 19950613

L7 ANSWER 123 OF 195 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.
(2004) on STN

AN 95:59072 AGRICOLA
DN IND20479688
TI Identification and characterization of a cDNA clone derived from the Marek's disease tumour cell line RPL1 encoding a homologue of alpha-transinducing factor (VP16) of HSV-1.
AU Koptidesova, D.; Kopacek, J.; Zelnik, V.; Ross, N.L.J.; Pastorekova, S.; Pastorek, J.
CS Slovak Academy of Sciences, Bratislava, Slovak Republic.
AV DNAL (448.3 Ar23)
SO Archives of virology, *** 1995. *** vol. 140, No. 2. p. 355-362
Publisher: Wien, Austria : Springer-Verlag.
CODEN: ARVIDF; ISSN: 0304-8608

NTE Includes references
CY Austria
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L7 ANSWER 124 OF 195 USPATFULL on STN
AN 94:29081 USPATFULL
TI Semiconductor IC device having sense amplifier circuit

IN Kawahara, Takayuki, Kokubunji, Japan
Akiba, Takesada, Kokubunji, Japan
Kitsukawa, Goro, Tokyo, Japan
Kawajiri, Yoshiki, Akishima, Japan
Itoh, Kiyoo, Higashikurume, Japan
Sakata, Takeshi, Kunitachi, Japan
PA Hitachi, Ltd., Tokyo, Japan (non-U.S. corporation)
Hitachi Device Engineering Co., Ltd., Mabora, Japan (non-U.S. corporation)
PI US 5300839 19940405 <--
AI US 1992-865852 19920409 (7)
PRAI JP 1991-82228 19910415
JP 1992-11727 19920127
DT Utility
FS Granted
LN.CNT 1031
INCL INCLM: 307/530.000
INCLS: 365/203.000
NCL NCLM: 327/052.000
NCLS: 365/203.000; 365/208.000
IC [5]
EXF ICM: G11C007-06
307/247.1; 307/350; 307/530; 365/189.06; 365/203; 365/205; 365/208
L7 ANSWER 125 OF 195 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:320903 CAPLUS
DN 120:320903
TI Analysis of antibody responses to predominant linear epitopes of Theiler's murine encephalomyelitis virus
AU Inoue, Atsushi; Choe, Yong Kyung; Kim, Byung S.
CS Med. Sch., Northwest. Univ., Chicago, IL, 60611, USA
SO Journal of Virology (***1994***), 68(5), 3324-33
CODEN: JOVIAM; ISSN: 0022-538X
DT Journal
LA English
L7 ANSWER 126 OF 195 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:571796 CAPLUS
DN 121:171796
TI Nucleotide sequence of a 55 kbp region from the right end of the genome of a pathogenic African swine fever virus isolate (malawi LIL20/1)
AU Dixon, Linda K.; Twigg, Stephen R. F.; Baylis, Sally A.; Vydelingum, Soopayah; Bristow, Christine; Hammond, Jef M.; Smith, Geoffrey L.
CS AFRC Inst. Animal Health, Pirbright Lab., Woking, GU24 0NF, UK
SO Journal of General Virology (***1994***), 75(7), 1655-84
CODEN: JGVIAY; ISSN: 0022-1317
DT Journal
LA English
L7 ANSWER 127 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1994:272819 BIOSIS
DN PREV199497285819
TI Detection and identification of *Vibrio parahaemolyticus* in fecal samples of outbreak patients by in vitro amplification of thermostable direct haemolysin gene fragment.
AU Lee, Chiayin [Reprint author]; Pan, Shwu-Fen; Lee, Yeong-Sheng; Lee, Chih-Lung
CS Graduate Inst. Agric. Chem., Natl. Taiwan Univ., Taipei, Taiwan
SO Journal of the Chinese Agricultural Chemical Society, (1994) Vol. 32, No. 1, pp. 103-112.
CODEN: CKNHAA. ISSN: 0578-1736.
DT Article
LA Chinese
ED Entered STN: 24 Jun 1994
Last Updated on STN: 24 Jun 1994
L7 ANSWER 128 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1993:235606 BIOSIS
DN PREV199395126781
TI A mutant of herpes simplex virus type 1 in which the UL13 protein kinase gene is disrupted.
AU Coulter, L. J.; Moss, H. W. M.; Lang, J.; McGeoch, D. J. [Reprint author]
CS Inst. Virology, Univ. Glasgow, Church Street, Glasgow G11 5JR, UK
SO Journal of General Virology, (1993) Vol. 74, No. 3, pp. 387-395.
CODEN: JGVIAY. ISSN: 0022-1317.
DT Article

LA English
ED Entered STN: 7 May 1993
Last Updated on STN: 7 May 1993

L7 ANSWER 129 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1992:234456 BIOSIS
DN PREV199293122481; BA93:122481
TI THE HERPES SIMPLEX VIRUS TYPE 1 TEGUMENT PROTEIN ***VP22*** IS ENCODED
BY GENE UL49.

AU ELLIOTT G D [Reprint author]; MEREDITH D M
CS DEP MICROBIOL, UNIV OF LEEDS, LEEDS LS2 9JT, UK
SO Journal of General Virology, (1992) Vol. 73, No. 3, pp. 723-726.
CODEN: JGVIAY. ISSN: 0022-1317.

DT Article
FS BA
LA ENGLISH
ED Entered STN: 10 May 1992
Last Updated on STN: 10 May 1992

L7 ANSWER 130 OF 195 USPATFULL on STN
AN 91:55132 USPATFULL
TI Image forming apparatus with AC bias voltages for preventing developer
mixture

IN Tajima, Hatsuo, Matsudo, Japan
Kobayashi, Yoshiaki, Tokyo, Japan

PA Canon Kabushiki Kaisha, Tokyo, Japan (non-U.S. corporation)
PI US 5030996 19910709 <--
AI US 1990-574893 19900830 (7)
PRAI JP 1989-223196 19890831
DT Utility
FS Granted
LN.CNT 758
INCL INCLM: 355/246.000
INCLS: 118/645.000; 355/326.000
NCL NCLM: 399/232.000
NCLS: 399/270.000
IC [5]
ICM: G03G021-00
EXF 355/246; 355/214; 355/326; 355/327; 355/328; 355/261; 355/265; 355/266;
118/645; 118/647; 118/651; 118/653; 346/157

L7 ANSWER 131 OF 195 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
AN 1991-067287 [10] WPIDS
DNN N1991-052055
TI Colour image forming appts. - has image bearing element toner developer
and developing bias voltage applying device.

DC P84 S06
IN KOBAYASHI, Y; TAJIMA, H
PA (CANO) CANON KK
CYC 5
PI EP 415753 A 19910306 (199110)* <--
R: DE FR GB IT
US 5030996 A 19910709 (199130) <--
EP 415753 B1 19931201 (199348) EN 18p G03G015-01 <--
R: DE FR GB IT
DE 69004896 E 19940113 (199403) G03G015-01 <--
ADT EP 415753 A EP 1990-309486 19900830; US 5030996 A US 1990-574893 19900830;
EP 415753 B1 EP 1990-309486 19900830; DE 69004896 E DE 1990-604896
19900830, EP 1990-309486 19900830
FDT DE 69004896 E Based on EP 415753
PRAI JP 1989-223196 19890831
IC G03G015-01; G03G021-00

L7 ANSWER 132 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1992:56110 BIOSIS
DN PREV199293036085; BA93:36085
TI POST-TRANSLATIONAL MODIFICATION OF THE TEGUMENT PROTEINS VP13 AND VP14 OF
HERPES SIMPLEX VIRUS TYPE 1 BY GLYCOSYLATION AND PHOSPHORYLATION.
AU MEREDITH D M [Reprint author]; LINDSAY J A; HALLIBURTON I W; WHITTAKER G R
CS DEP MICROBIOL, UNIV LEEDS, LEEDS LS2 9JT, UK
SO Journal of General Virology, (1991) Vol. 72, No. 11, pp. 2771-2776.
CODEN: JGVIAY. ISSN: 0022-1317.

DT Article
FS BA
LA ENGLISH
ED Entered STN: 13 Jan 1992

L7 ANSWER 133 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1990:139691 BIOSIS
DN PREV199089078502; BA89:78502
TI THREE-DIMENSIONAL STRUCTURES OF MATURABLE AND ABORTIVE CAPSIDS OF EQUINE
HERPESVIRUS 1 FROM CRYOELECTRON MICROSCOPY.
AU BAKER T S [Reprint author]; NEWCOMB W W; BOOY F P; BROWN J C; STEVEN A C
CS LAB PHYSIOL BIOL, NATL INST ARTHRITIS MUSCULOSKELETAL SKIN DIS, BUILDING
6, ROOM 114, BETHESDA, MD 20892, USA
SO Journal of Virology, (1990) Vol. 64, No. 2, pp. 563-573.
CODEN: JOVIAM. ISSN: 0022-538X.

DT Article
FS BA
LA ENGLISH
ED Entered STN: 13 Mar 1990
Last Updated on STN: 13 Mar 1990

L7 ANSWER 134 OF 195 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1991:445358 CAPLUS
DN 115:45358
TI Purification of the structural proteins of herpes simplex virus type 1 by
reversed-phase high-performance liquid chromatography
AU Whittaker, G. R.; Meredith, D. M.
CS Dep. Microbiol., Univ. Leeds, Leeds, LS2 9JT, UK
SO Archives of Virology (***1990***), 114(3-4), 271-6
CODEN: ARVIDF; ISSN: 0304-8608

DT Journal
LA English

L7 ANSWER 135 OF 195 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
AN 1985-05303 BIOTECHDS
TI Construction of a shuttle vector which replicates stably in *Vibrio*
parahaemolyticus and *Escherichia coli*;
plasmid characterization (conference paper)
AU Ando T; Arai T
LO Department of Microbiology, Keio University School of Medicine Tokyo,
Japan.
SO Transferable Antibiot.Resist.; (***1984***) 5 Meet., 347-52
DT Journal
LA English

L7 ANSWER 136 OF 195 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1983:403337 CAPLUS
DN 99:3337
TI Important role of protease of baculovirus inclusion bodies in the
infection process
AU Kozlov, E. A.; Levitina, T. L.; Gusak, N. M.; Unguryanu, N.; Serebryanyi,
S. B.
CS Inst. Mol. Biol. Genet., Kiev, USSR
SO Molekulyarnaya Biologiya (Kiev) (***1982***), 31, 32-5
CODEN: MLKBAQ; ISSN: 0375-9415
DT Journal
LA Russian

L7 ANSWER 137 OF 195 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1980:179973 BIOSIS
DN PREV198069054969; BA69:54969
TI VIRUS SPECIFIC BASIC PHOSPHO PROTEINS ASSOCIATED WITH HERPES SIMPLEX VIRUS
TYPE 1 PARTICLES AND THE CHROMATIN OF HERPES SIMPLEX VIRUS TYPE 1 INFECTED
CELLS.
AU KNOPF K-W [Reprint author]; KAERNER H C
CS GER CANCER RES CENT, INST VIRUS RES, 6900 HEIDELBERG, W GER
SO Journal of General Virology, (1980) Vol. 46, No. 2, pp. 405-414.
CODEN: JGVIAY. ISSN: 0022-1317.
DT Article
FS BA
LA ENGLISH

L7 ANSWER 138 OF 195 USPATFULL on STN
AN 79:17060 USPATFULL
TI Two-color electrostatic printing apparatus
IN Yamauchi, Mineo, Musashino, Japan
Sumi, Akira, Musashino, Japan
PA Yokogawa Electric Works, Ltd., Tokyo, Japan (non-U.S. corporation)
PI US 4148043 19790403 <--

AI US 1977-782095 19770328 (5)
PRAI JP 1976-35640 19760331
DT Utility
FS Granted
LN.CNT 853
INCL INCLM: 346/157.000
INCLS: 346/154.000
NCL NCLM: 347/115.000
NCLS: 347/142.000
IC [2]
ICM: G03G015-02
EXF 346/157; 346/153; 346/154; 355/14

L7 ANSWER 139 OF 195 USPATFULL on STN
AN 77:17043 USPATFULL
TI Process for polymerizing tetrafluoroethylene in aqueous dispersion
IN Holmes, David Alan, Vienna, WV, United States
PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States
(U.S. corporation)
PI US 4016345 19770405 <--
AI US 1976-670075 19760324 (5)
RLI Continuation-in-part of Ser. No. US 1972-317804, filed on 22 Dec 1972,
now abandoned
DT Utility
FS Granted
LN.CNT 590
INCL INCLM: 526/206.000
INCLS: 526/255.000
NCL NCLM: 526/206.000
NCLS: 526/255.000
IC [2]
ICM: C08F014-26
EXF 526/229; 526/255; 526/206
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 140 OF 195 BIOCOMMERCE COPYRIGHT 2004 BioCommerce Data Ltd. on
STN
AN 0183317 BIOCOMMERCE FS Abstract
CO Phogen Ltd (41282), UK
Washington University (3086), USA
Idun Pharmaceuticals Inc (28890), USA
SO Pharmaceutical Business News, 10 SEP 1999, vol. 349, Page(s) 22.
TC (Company information)

L7 ANSWER 141 OF 195 BIOCOMMERCE COPYRIGHT 2004 BioCommerce Data Ltd. on
STN
AN 0180669 BIOCOMMERCE FS Abstract
CO Phogen Ltd (41282), UK
Cantab Pharmaceuticals plc (26256), UK
Marie Curie Cancer Care (MCCC) (41041), UK
Xenova Group plc (29007), UK
SO Scrip, 26 MAY 1999, vol. 2440, Page(s) 14.
Pharma Marketletter, 24 MAY 1999, vol. 2621, Page(s) 6.
TC (Company information)

L7 ANSWER 142 OF 195 BIOCOMMERCE COPYRIGHT 2004 BioCommerce Data Ltd. on
STN
AN 0178060 BIOCOMMERCE FS Abstract
CO Phogen Ltd (41282), UK
Cantab Pharmaceuticals plc (26256), UK
Marie Curie Cancer Care (MCCC) (41041), UK
Xenova Group plc (29007), UK
SO Scrip, 22 JAN 1999, vol. 2405, Page(s) 22.
Pharmaceutical Business News, 22 JAN 1999, vol. 15334, Page(s) 26.
TC (Company information)

L7 ANSWER 143 OF 195 BIOCOMMERCE COPYRIGHT 2004 BioCommerce Data Ltd. on
STN
AN 0177649 BIOCOMMERCE FS Abstract
CO Phogen Ltd (41282), UK
Karolinska Institute (KI) (602), Sweden
Marie Curie Cancer Care (MCCC) (41041), UK
Cantab Pharmaceuticals plc (26256), UK
NASDAQ Stock Market (33303), USA
Xenova Group plc (29007), UK
SO Phogen Press Release, 11 JAN 1999

TC (Company information)

L7 ANSWER 144 OF 195 BIOCOMMERCE COPYRIGHT 2004 BioCommerce Data Ltd. on STN

AN 0176533 BIOCOMMERCE FS Abstract

CO Phogen Ltd (41282), UK

Cantab Pharmaceuticals Research Ltd (26181), UK

Marie Curie Cancer Care (MCCC) (41041), UK

Chemo-Sero-Therapeutic Research Institute, The (Kaketsuken) (2351), Japan

Xenova Research Ltd (49192), UK

SO Genetic Engineering News, 01 NOV 1998, vol. 1819, Page(s) 1,22,39,42.

TC General Review

L7 ANSWER 145 OF 195 BIOCOMMERCE COPYRIGHT 2004 BioCommerce Data Ltd. on STN

AN 0173423 BIOCOMMERCE FS Abstract

CO Phogen Ltd (41282), UK

Cantab Pharmaceuticals plc (26256), UK

Marie Curie Cancer Care (MCCC) (41041), UK

Invitrogen Corp (17791), USA

Marie Curie Research Institute (15418), UK

Xenova Group plc (29007), UK

SO Pharm Science & Technology Today, JUN 1998, vol. 13, Page(s) 92-93.

TC General Review

L7 ANSWER 146 OF 195 BIOCOMMERCE COPYRIGHT 2004 BioCommerce Data Ltd. on STN

AN 0171772 BIOCOMMERCE FS Abstract

CO Marie Curie Research Institute (15418), UK

Texas A&M University (4987), USA

SO Nature Biotechnology, MAY 1998, vol. 165, Page(s) 418-419,440-43.

Chemistry in Britain, AUG 1998, vol. 348, Page(s) 19.

TC (Institute information)

L7 ANSWER 147 OF 195 BIOCOMMERCE COPYRIGHT 2004 BioCommerce Data Ltd. on STN

AN 0170624 BIOCOMMERCE FS Abstract

CO Phogen Ltd (41282), UK

Invitrogen Corp (17791), USA

SO Scrip, 15 MAY 1998, vol. 2335, Page(s) 29.

Genetic Technology News, 13 MAY 1998, vol. 1819, Page(s) 3.

In Vivo, MAY 1998, vol. 165, Page(s) 74-75.

TC (Company information)

L7 ANSWER 148 OF 195 BIOCOMMERCE COPYRIGHT 2004 BioCommerce Data Ltd. on STN

AN 0169739 BIOCOMMERCE FS Abstract

CO Phogen Ltd (41282), UK

Cantab Pharmaceuticals plc (26256), UK

Marie Curie Research Institute (15418), UK

Xenova Group plc (29007), UK

SO Cantab Pharmaceuticals Press Release, 08 MAY 1998, vol. 320, Page(s) 1,8.

BioWorld International, 20 MAY 1998, vol. 165, Page(s) 440-443.

Nature Biotechnology, MAY 1998, vol. 2335, Page(s) 29.

Scrip, 15 MAY 1998, vol. 136, Page(s) 30.

BioVenture View, JUN 1998, vol. 267, Page(s) 12.

European Biotechnology Newsletter, 21 MAY 1998, vol. 2,340, Page(s) 724.

Gene Therapy, 03 JUN 1998, vol. 1811, Page(s) 2.

Applied Genetics News, JUN 1998

TC (Company information)

L7 ANSWER 149 OF 195 BIOCOMMERCE COPYRIGHT 2004 BioCommerce Data Ltd. on STN

AN 0152695 BIOCOMMERCE FS Abstract

CO Cantab Pharmaceuticals plc (26256), UK

Marie Curie Cancer Care (MCCC) (41041), UK

Phogen Ltd (41282), UK

Xenova Group plc (29007), UK

SO Cantab Pharmaceuticals Press Release, 27 FEB 1997, vol. 210, Page(s) 24.

Times, 28 FEB 1997, vol. 2213, Page(s) 1,3.

BioWorld International, 05 MAR 1997, vol. 43, Page(s) 10.

Scrip, 11 MAR 1997, vol. 2410, Page(s) 178.

Gene Therapy, MAR 1997, vol. 68, Page(s) 28.

Marketletter, 10 MAR 1997, vol. 13287, Page(s) 8-9.

R&D Focus Drug News, 10 MAR 1997, vol. 6, Page(s) 18.

Pharmaceutical Business News, 12 MAR 1997, vol. 710, Page(s) 202.

Chemistry and Industry, 17 MAR 1997, vol. 611, Page(s) 8.
BIA Bulletin, MAY 1997, vol. 2412, Page(s) 28.
Marketletter, 04 MAY 1998, vol. 421, Page(s) 6-7.
Pharmaceutical ventures, 10 MAR 1997, vol. 176, Page(s) 10.
R&D Focus Drug News, 31 MAR 1997, vol. 44, Page(s) 4.
Marketletter, 24 MAR 1997, vol. 519, Page(s) 7.
European Biotechnology Newsletter, 20 MAR 1997, vol. 174, Page(s) 14.
Biotechnology Newswatch, 03 MAR 1997, vol. 335, Page(s) 13.
Cancer Weekly, 10 MAR 1997, vol. 95, Page(s) 9-10.
Gene Therapy Weekly, 10 MAR 1997, vol. 104, Page(s) 4.
Genetic Engineering News, 15 MAR 1997, Page(s) 272.
Gene Therapy, APR 1997, Page(s) 3.
BioWorld Financial Watch, 12 MAY 1997, Page(s) 8.
Pharmaceutical Times, APR 1997, Page(s) 12.
Genetic Technology News, APR 1997, Page(s) 10.
Chemistry in Britain, MAY 1997, Page(s) 10.
Pharmaceutical Technology Europe, MAY 1997, Page(s) 11.
BioPharm, APR 1997, Page(s) 4.
Nature UK Product Review, MAY 1997, Page(s) 8.
BIA Bulletin, MAY 1998, Page(s) 10.
BioPharm Showcase, JUL 1998

TC (Company information)

L7 ANSWER 150 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAY78333 peptide DGENE
TI New membrane permanent peptide complexes for medical imaging, diagnostics
and therapy -
IN Piwnica-Worms D
PA (UNIW) UNIV WASHINGTON.
PI ***WO 9967284 A2 19991229 65p***
AI WO 1999-US13660 19990618
PRAI US 1998-90087 19980620
DT Patent
LA English
OS 2000-160576 [14]
DESC Herpes simplex virus ***VP22*** protein SEQ ID NO:5.

L7 ANSWER 151 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAW67755 Protein DGENE
TI Subunit vaccine containing ***VP22*** polypeptide of herpes simplex
virus - and vaccines containing vector encoding this polypeptide, induce
a cytotoxic T cell response
IN Burke R L; Tigges M A
PA (CHIR) CHIRON CORP.
PI ***WO 9855145 A1 19981210 94p***
AI WO 1998-US10664 19980526
PRAI US 1997-47359 19970602
DT Patent
LA English
OS 1999-059878 [05]
CR N-PSDB: AAV81471
DESC HSV-2 ***VP22*** protein.

L7 ANSWER 152 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAW95100 peptide DGENE
TI Fusion and chimaeric proteins including cyclin-dependent kinase binding
motif - used for regulation of cell proliferation and differentiation,
for treatment of, e.g. vascular injury, cancers, fibrosis and
neurodegeneration
IN Beach D H; Gyuris J; Lamphere L
PA (MITO-N) MITOTIX INC.
PI ***WO 9906540 A2 19990211 88p***
AI WO 1998-US15759 19980729
PRAI US 1997-902572 19970729
DT Patent
LA English
OS 1999-153770 [13]
CR N-PSDB: AAX26228
DESC HIV-1 ***VP22*** polypeptide C-terminal domain.

L7 ANSWER 153 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAW95099 Protein DGENE
TI Fusion and chimaeric proteins including cyclin-dependent kinase binding
motif - used for regulation of cell proliferation and differentiation,
for treatment of, e.g. vascular injury, cancers, fibrosis and
neurodegeneration

IN Beach D H; Gyuris J; Lamphere L
PA (MITO-N) MITOTIX INC.
PI ***WO 9906540 A2 19990211
AI WO 1998-US15759 19980729
PRAI US 1997-902572 19970729
DT Patent
LA English
OS 1999-153770 [13]
CR N-PSDB: AAX26227
DESC HIV-1 ***VP22*** polypeptide.

88p***

L7 ANSWER 154 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAY27404 Protein DGENE
TI New prodrug activating agent targeted to selected cells or tissues, particularly hypoxic cells, for treating e.g. tumors or inflammation -
IN Stratford I J; Patterson A V; Kingsman S M; Kan O; Griffiths L;
Mitrophanous K
PA (OXFO-N) OXFORD BIOMEDICA UK LTD.
PI ***WO 9945126 A2 19990910 149p***
AI WO 1999-GB672 19990305
PRAI GB 1998-4841 19980306
GB 1998-18103 19980819
GB 1999-2081 19990129
DT Patent
LA English
OS 1999-540852 [45]
CR N-PSDB: AAZ07807
DESC HSV-1 tegument protein ***VP22*** .

L7 ANSWER 155 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAY42292 Protein DGENE
TI New prodrug activating agent targeted to selected cells or tissues, particularly hypoxic cells, for treating e.g. tumors -
IN Stratford I J; Patterson A V; Kingsman S M; Kan O; Griffiths L;
Mitrophanous K
PA (OXFO-N) OXFORD BIOMEDICA UK LTD.
PI ***WO 9945127 A2 19990910 187p***
AI WO 1999-GB674 19990305
PRAI GB 1998-4841 19980306
GB 1998-18103 19980819
GB 1999-2081 19990129
DT Patent
LA English
OS 1999-551046 [46]
CR N-PSDB: AAZ19784
DESC Herpes simplex virus type 1 (HSV-1) ***VP22*** tegument protein.

L7 ANSWER 156 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAW47199 peptide DGENE
TI New antiviral agent disrupting binding of ***VP22*** to VP16 or gB - useful for treating infections caused by herpes simplex, e.g. cold sores and chicken-pox
IN Hope R G; McGeoch D J; McLaughlan J; Rixon H W M
PA (MEDI-N) MEDICAL RES COUNCIL.
PI ***WO 9804708 A1 19980205 75p***
AI WO 1997-GB2036 19970728
PRAI GB 1996-15726 19960726
DT Patent
LA English
OS 1998-130696 [12]
DESC HSV truncated tegument protein ***VP22*** derived peptide D.

L7 ANSWER 157 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAW47198 peptide DGENE
TI New antiviral agent disrupting binding of ***VP22*** to VP16 or gB - useful for treating infections caused by herpes simplex, e.g. cold sores and chicken-pox
IN Hope R G; McGeoch D J; McLaughlan J; Rixon H W M
PA (MEDI-N) MEDICAL RES COUNCIL.
PI ***WO 9804708 A1 19980205 75p***
AI WO 1997-GB2036 19970728
PRAI GB 1996-15726 19960726
DT Patent
LA English
OS 1998-130696 [12]
DESC HSV truncated tegument protein ***VP22*** derived peptide C.

L7 ANSWER 158 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAW47197 peptide DGENE
TI New antiviral agent disrupting binding of ***VP22*** to VP16 or gB -
useful for treating infections caused by herpes simplex, e.g. cold sores
and chicken-pox

IN Hope R G; McGeoch D J; McLaughlan J; Rixon H W M
PA (MEDI-N) MEDICAL RES COUNCIL.
PI ***WO 9804708 A1 19980205 75p***
AI WO 1997-GB2036 19970728
PRAI GB 1996-15726 19960726
DT Patent
LA English
OS 1998-130696 [12]
DESC HSV truncated tegument protein ***VP22*** derived peptide B.

L7 ANSWER 159 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAW47196 peptide DGENE
TI New antiviral agent disrupting binding of ***VP22*** to VP16 or gB -
useful for treating infections caused by herpes simplex, e.g. cold sores
and chicken-pox

IN Hope R G; McGeoch D J; McLaughlan J; Rixon H W M
PA (MEDI-N) MEDICAL RES COUNCIL.
PI ***WO 9804708 A1 19980205 75p***
AI WO 1997-GB2036 19970728
PRAI GB 1996-15726 19960726
DT Patent
LA English
OS 1998-130696 [12]
DESC HSV truncated tegument protein ***VP22*** derived peptide A.

L7 ANSWER 160 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAW47195 peptide DGENE
TI New antiviral agent disrupting binding of ***VP22*** to VP16 or gB -
useful for treating infections caused by herpes simplex, e.g. cold sores
and chicken-pox

IN Hope R G; McGeoch D J; McLaughlan J; Rixon H W M
PA (MEDI-N) MEDICAL RES COUNCIL.
PI ***WO 9804708 A1 19980205 75p***
AI WO 1997-GB2036 19970728
PRAI GB 1996-15726 19960726
DT Patent
LA English
OS 1998-130696 [12]
DESC Herpes simplex virus truncated tegument protein ***VP22*** .

L7 ANSWER 161 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAW47194 Protein DGENE
TI New antiviral agent disrupting binding of ***VP22*** to VP16 or gB -
useful for treating infections caused by herpes simplex, e.g. cold sores
and chicken-pox

IN Hope R G; McGeoch D J; McLaughlan J; Rixon H W M
PA (MEDI-N) MEDICAL RES COUNCIL.
PI ***WO 9804708 A1 19980205 75p***
AI WO 1997-GB2036 19970728
PRAI GB 1996-15726 19960726
DT Patent
LA English
OS 1998-130696 [12]
CR N-PSDB: AAV17085
DESC Herpes simplex virus tegument protein ***VP22*** .

L7 ANSWER 162 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAW47205 peptide DGENE
TI New antiviral agent disrupting binding of ***VP22*** to VP16 or gB -
useful for treating infections caused by herpes simplex, e.g. cold sores
and chicken-pox

IN Hope R G; McGeoch D J; McLaughlan J; Rixon H W M
PA (MEDI-N) MEDICAL RES COUNCIL.
PI ***WO 9804708 A1 19980205 75p***
AI WO 1997-GB2036 19970728
PRAI GB 1996-15726 19960726
DT Patent
LA English
OS 1998-130696 [12]
DESC HSV truncated tegument protein ***VP22*** derived peptide J.

L7 ANSWER 163 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAW47204 peptide DGENE
TI New antiviral agent disrupting binding of ***VP22*** to VP16 or gB - useful for treating infections caused by herpes simplex, e.g. cold sores and chicken-pox
IN Hope R G; McGeoch D J; McLaughlan J; Rixon H W M
PA (MEDI-N) MEDICAL RES COUNCIL.
PI ***WO 9804708 A1 19980205 75p***
AI WO 1997-GB2036 19970728
PRAI GB 1996-15726 19960726
DT Patent
LA English
OS 1998-130696 [12]
DESC HSV truncated tegument protein ***VP22*** derived peptide I.

L7 ANSWER 164 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAW47203 peptide DGENE
TI New antiviral agent disrupting binding of ***VP22*** to VP16 or gB - useful for treating infections caused by herpes simplex, e.g. cold sores and chicken-pox
IN Hope R G; McGeoch D J; McLaughlan J; Rixon H W M
PA (MEDI-N) MEDICAL RES COUNCIL.
PI ***WO 9804708 A1 19980205 75p***
AI WO 1997-GB2036 19970728
PRAI GB 1996-15726 19960726
DT Patent
LA English
OS 1998-130696 [12]
DESC HSV truncated tegument protein ***VP22*** derived peptide H.

L7 ANSWER 165 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAW47202 peptide DGENE
TI New antiviral agent disrupting binding of ***VP22*** to VP16 or gB - useful for treating infections caused by herpes simplex, e.g. cold sores and chicken-pox
IN Hope R G; McGeoch D J; McLaughlan J; Rixon H W M
PA (MEDI-N) MEDICAL RES COUNCIL.
PI ***WO 9804708 A1 19980205 75p***
AI WO 1997-GB2036 19970728
PRAI GB 1996-15726 19960726
DT Patent
LA English
OS 1998-130696 [12]
DESC HSV truncated tegument protein ***VP22*** derived peptide G.

L7 ANSWER 166 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAW47201 peptide DGENE
TI New antiviral agent disrupting binding of ***VP22*** to VP16 or gB - useful for treating infections caused by herpes simplex, e.g. cold sores and chicken-pox
IN Hope R G; McGeoch D J; McLaughlan J; Rixon H W M
PA (MEDI-N) MEDICAL RES COUNCIL.
PI ***WO 9804708 A1 19980205 75p***
AI WO 1997-GB2036 19970728
PRAI GB 1996-15726 19960726
DT Patent
LA English
OS 1998-130696 [12]
DESC HSV truncated tegument protein ***VP22*** derived peptide F.

L7 ANSWER 167 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAW47200 peptide DGENE
TI New antiviral agent disrupting binding of ***VP22*** to VP16 or gB - useful for treating infections caused by herpes simplex, e.g. cold sores and chicken-pox
IN Hope R G; McGeoch D J; McLaughlan J; Rixon H W M
PA (MEDI-N) MEDICAL RES COUNCIL.
PI ***WO 9804708 A1 19980205 75p***
AI WO 1997-GB2036 19970728
PRAI GB 1996-15726 19960726
DT Patent
LA English
OS 1998-130696 [12]
DESC HSV truncated tegument protein ***VP22*** derived peptide E.

L7 ANSWER 168 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAW69718 protein DGENE
TI Coupled or fusion polypeptides, for transporting proteins into cells -
contain an amino acid sequence with the transport function of herpesviral
VP22 protein
IN Elliott G D; O'Hare P F J
PA (CURI-N) CURIE CANCER CARE MARIE.
PI ***WO 9832866 A1 19980730 39p***
AI WO 1998-GB207 19980123
PRAI GB 1997-16398 19970801
GB 1997-1363 19970123
DT Patent
LA English
OS 1998-427962 [36]
DESC Human p53 used in coupled proteins and fusion proteins.

L7 ANSWER 169 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAW69717 protein DGENE
TI Coupled or fusion polypeptides, for transporting proteins into cells -
contain an amino acid sequence with the transport function of herpesviral
VP22 protein
IN Elliott G D; O'Hare P F J
PA (CURI-N) CURIE CANCER CARE MARIE.
PI ***WO 9832866 A1 19980730 39p***
AI WO 1998-GB207 19980123
PRAI GB 1997-16398 19970801
GB 1997-1363 19970123
DT Patent
LA English
OS 1998-427962 [36]
DESC Herpesviral ***VP22*** protein used in coupled proteins and fusion
proteins.

L7 ANSWER 170 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAV81473 DNA DGENE
TI Subunit vaccine containing ***VP22*** polypeptide of herpes simplex
virus - and vaccines containing vector encoding this polypeptide, induce
a cytotoxic T cell response
IN Burke R L; Tigges M A
PA (CHIR) CHIRON CORP.
PI ***WO 9855145 A1 19981210 94p***
AI WO 1998-US10664 19980526
PRAI US 1997-47359 19970602
DT Patent
LA English
OS 1999-059878 [05]
DESC Primer GPUL49 3' for HSV-2 ***VP22*** gene.

L7 ANSWER 171 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAV81472 DNA DGENE
TI Subunit vaccine containing ***VP22*** polypeptide of herpes simplex
virus - and vaccines containing vector encoding this polypeptide, induce
a cytotoxic T cell response
IN Burke R L; Tigges M A
PA (CHIR) CHIRON CORP.
PI ***WO 9855145 A1 19981210 94p***
AI WO 1998-US10664 19980526
PRAI US 1997-47359 19970602
DT Patent
LA English
OS 1999-059878 [05]
DESC Primer GPUL49 5' for HSV-2 ***VP22*** gene.

L7 ANSWER 172 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAV81471 DNA DGENE
TI Subunit vaccine containing ***VP22*** polypeptide of herpes simplex
virus - and vaccines containing vector encoding this polypeptide, induce
a cytotoxic T cell response
IN Burke R L; Tigges M A
PA (CHIR) CHIRON CORP.
PI ***WO 9855145 A1 19981210 94p***
AI WO 1998-US10664 19980526
PRAI US 1997-47359 19970602
DT Patent
LA English
OS 1999-059878 [05]

CR P-PSDB: AAW67755
DESC HSV-2 ***VP22*** gene.

L7 ANSWER 173 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAX26227 DNA DGENE
TI Fusion and chimaeric proteins including cyclin-dependent kinase binding motif - used for regulation of cell proliferation and differentiation, for treatment of, e.g. vascular injury, cancers, fibrosis and neurodegeneration

IN Beach D H; Gyuris J; Lamphere L
PA (MITO-N) MITOTIX INC.
PI ***WO 9906540 A2 19990211 88p***
AI WO 1998-US15759 19980729
PRAI US 1997-902572 19970729
DT Patent
LA English
OS 1999-153770 [13]
CR P-PSDB: AAW95099
DESC HIV-1 ***VP22*** polypeptide encoding DNA.

L7 ANSWER 174 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAX26228 DNA DGENE
TI Fusion and chimaeric proteins including cyclin-dependent kinase binding motif - used for regulation of cell proliferation and differentiation, for treatment of, e.g. vascular injury, cancers, fibrosis and neurodegeneration

IN Beach D H; Gyuris J; Lamphere L
PA (MITO-N) MITOTIX INC.
PI ***WO 9906540 A2 19990211 88p***
AI WO 1998-US15759 19980729
PRAI US 1997-902572 19970729
DT Patent
LA English
OS 1999-153770 [13]
CR P-PSDB: AAW95100
DESC HIV-1 ***VP22*** polypeptide C-terminal domain encoding DNA.

L7 ANSWER 175 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAZ07807 DNA DGENE
TI New prodrug activating agent targeted to selected cells or tissues, particularly hypoxic cells, for treating e.g. tumors or inflammation -

IN Stratford I J; Patterson A V; Kingsman S M; Kan O; Griffiths L; Mitrophanous K
PA (OXFO-N) OXFORD BIOMEDICA UK LTD.
PI ***WO 9945126 A2 19990910 149p***
AI WO 1999-GB672 19990305
PRAI GB 1998-4841 19980306
GB 1998-18103 19980819
GB 1999-2081 19990129

DT Patent
LA English
OS 1999-540852 [45]
CR P-PSDB: AAY27404
DESC HSV-1 tegument protein ***VP22*** encoding DNA.

L7 ANSWER 176 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAZ07770 DNA DGENE
TI New prodrug activating agent targeted to selected cells or tissues, particularly hypoxic cells, for treating e.g. tumors or inflammation -

IN Stratford I J; Patterson A V; Kingsman S M; Kan O; Griffiths L; Mitrophanous K
PA (OXFO-N) OXFORD BIOMEDICA UK LTD.
PI ***WO 9945126 A2 19990910 149p***
AI WO 1999-GB672 19990305
PRAI GB 1998-4841 19980306
GB 1998-18103 19980819
GB 1999-2081 19990129

DT Patent
LA English
OS 1999-540852 [45]
DESC HSV-1 tegument protein ***VP22*** 3' primer.

L7 ANSWER 177 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAZ07769 DNA DGENE
TI New prodrug activating agent targeted to selected cells or tissues, particularly hypoxic cells, for treating e.g. tumors or inflammation -

IN Stratford I J; Patterson A V; Kingsman S M; Kan O; Griffiths L;
Mitrophanous K
PA (OXFO-N) OXFORD BIOMEDICA UK LTD.
PI ***WO 9945126 A2 19990910 149p***
AI WO 1999-GB672 19990305
PRAI GB 1998-4841 19980306
GB 1998-18103 19980819
GB 1999-2081 19990129
DT Patent
LA English
OS 1999-540852 [45]
DESC HSV-1 tegument protein ***VP22*** 5' primer.

L7 ANSWER 178 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAZ19804 DNA DGENE
TI New prodrug activating agent targeted to selected cells or tissues,
particularly hypoxic cells, for treating e.g. tumors -
IN Stratford I J; Patterson A V; Kingsman S M; Kan O; Griffiths L;
Mitrophanous K
PA (OXFO-N) OXFORD BIOMEDICA UK LTD.
PI ***WO 9945127 A2 19990910 187p***
AI WO 1999-GB674 19990305
PRAI GB 1998-4841 19980306
GB 1998-18103 19980819
GB 1999-2081 19990129
DT Patent
LA English
OS 1999-551046 [46]
DESC Herpes simplex type 1 (HSV-1) tegument protein ***VP22*** 3' PCR
primer.

L7 ANSWER 179 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAZ19803 DNA DGENE
TI New prodrug activating agent targeted to selected cells or tissues,
particularly hypoxic cells, for treating e.g. tumors -
IN Stratford I J; Patterson A V; Kingsman S M; Kan O; Griffiths L;
Mitrophanous K
PA (OXFO-N) OXFORD BIOMEDICA UK LTD.
PI ***WO 9945127 A2 19990910 187p***
AI WO 1999-GB674 19990305
PRAI GB 1998-4841 19980306
GB 1998-18103 19980819
GB 1999-2081 19990129
DT Patent
LA English
OS 1999-551046 [46]
DESC Herpes simplex type 1 (HSV-1) tegument protein ***VP22*** 5' PCR
primer.

L7 ANSWER 180 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAZ19796 DNA DGENE
TI New prodrug activating agent targeted to selected cells or tissues,
particularly hypoxic cells, for treating e.g. tumors -
IN Stratford I J; Patterson A V; Kingsman S M; Kan O; Griffiths L;
Mitrophanous K
PA (OXFO-N) OXFORD BIOMEDICA UK LTD.
PI ***WO 9945127 A2 19990910 187p***
AI WO 1999-GB674 19990305
PRAI GB 1998-4841 19980306
GB 1998-18103 19980819
GB 1999-2081 19990129
DT Patent
LA English
OS 1999-551046 [46]
DESC Human anchorless P450R 3' PCR primer.

L7 ANSWER 181 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
AN AAZ19795 DNA DGENE
TI New prodrug activating agent targeted to selected cells or tissues,
particularly hypoxic cells, for treating e.g. tumors -
IN Stratford I J; Patterson A V; Kingsman S M; Kan O; Griffiths L;
Mitrophanous K
PA (OXFO-N) OXFORD BIOMEDICA UK LTD.
PI ***WO 9945127 A2 19990910 187p***
AI WO 1999-GB674 19990305
PRAI GB 1998-4841 19980306

GB 1998-18103 19980819
 GB 1999-2081 19990129
 DT Patent
 LA English
 OS 1999-551046 [46]
 DESC Human anchorless P450R 5' PCR primer.

L7 ANSWER 182 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
 AN AAZ19784 DNA DGENE
 TI New prodrug activating agent targeted to selected cells or tissues, particularly hypoxic cells, for treating e.g. tumors -
 IN Stratford I J; Patterson A V; Kingsman S M; Kan O; Griffiths L; Mitrophanous K
 PA (OXFO-N) OXFORD BIOMEDICA UK LTD.
 PI ***WO 9945127 A2 19990910 187p***
 AI WO 1999-GB674 19990305
 PRAI GB 1998-4841 19980306
 GB 1998-18103 19980819
 GB 1999-2081 19990129
 DT Patent
 LA English
 OS 1999-551046 [46]
 CR P-PSDB: AAY42292
 DESC Herpes simplex virus type 1 (HSV-1) ***VP22*** DNA.

L7 ANSWER 183 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
 AN AAV17085 DNA DGENE
 TI New antiviral agent disrupting binding of ***VP22*** to VP16 or gB - useful for treating infections caused by herpes simplex, e.g. cold sores and chicken-pox
 IN Hope R G; McGeoch D J; McLaughlan J; Rixon H W M
 PA (MEDI-N) MEDICAL RES COUNCIL.
 PI ***WO 9804708 A1 19980205 75p***
 AI WO 1997-GB2036 19970728
 PRAI GB 1996-15726 19960726
 DT Patent
 LA English
 OS 1998-130696 [12]
 CR P-PSDB: AAW47194
 DESC Herpes simplex virus UL49 gene.

L7 ANSWER 184 OF 195 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
 AN AAT10200 DNA DGENE
 TI Amplification and detection of specific gene fragment of *Vibrio parahaemolyticus* - using two oligo:nucleotide(s) as a primer set to amplify the thermostable direct haemolysin gene
 IN Lii J; Pan S
 PA (LIIJ-I) LII J.
 PI ***TW 265366 A 19951211 9p***
 AI TW 1993-110632 19931215
 PRAI TW 1993-110632 19931215
 DT Patent
 LA Chinese
 OS 1996-086449 [09]
 DESC Thermostable direct haemolysin primer, ***VP22*** .

L7 ANSWER 185 OF 195 GENBANK.RTM. COPYRIGHT 2004 on STN

LOCUS (LOC): BVH1LFT31 GenBank (R)
 GenBank ACC. NO. (GBN): Z54206
 GenBank VERSION (VER): Z54206.1 GI:995626
 CAS REGISTRY NO. (RN): 169022-06-4
 SEQUENCE LENGTH (SQL): 31444
 MOLECULE TYPE (CI): DNA; linear
 DIVISION CODE (CI): Viruses
 DATE (DATE): 23 Jan 1997
 DEFINITION (DEF): Bovine herpesvirus type 1 31-kb DNA (left genome end).
 SOURCE: Bovine herpesvirus 1.
 ORGANISM (ORGN): Bovine herpesvirus 1
 Viruses; dsDNA viruses, no RNA stage; Herpesviridae;
 Alphaherpesvirinae; Varicellovirus
 NUCLEIC ACID COUNT (NA): 4507 a 10913 c 11443 g 4581 t
 REFERENCE: 1 (bases 1 to 1354)
 AUTHOR (AU): Fraefel,C.; Wirth,U.V.; Vogt,B.; Schwyzer,M.
 TITLE (TI): Immediate-early transcription over covalently joined genome ends of bovine herpesvirus 1: the circ gene

JOURNAL (SO): Journal of virology., 67 (3), 1328-1333 (***1993***
)
 OTHER SOURCE (OS): CA 118:227339
 REFERENCE:
 AUTHOR (AU): 2 (bases 1601 to 3100)
 TITLE (TI): Singh,M.; Fraefel,C.; Bello,L.J.; Lawrence,W.C.;
 Schwyzer,M.
 Identification and characterization of BICP27, an early
 protein of bovine herpesvirus 1 which may stimulate
 mRNA 3' processing
 JOURNAL (SO): The Journal of general virology., 77 (Pt 4), 615-625 (***1996***)
 OTHER SOURCE (OS): CA 124:282366
 REFERENCE:
 AUTHOR (AU): 3 (bases 3101 to 8000)
 TITLE (TI): Letchworth,G.J.; Lowery,D.E.; Schwyzer,M.
 Sequence of the BHV-1 UL53 (gK), UL52
 (helicase/primase), and UL51 genes
 JOURNAL (SO): Unpublished
 REFERENCE:
 AUTHOR (AU): 4 (bases 7818 to 9667)
 TITLE (TI): Liang,X.; Tang,M.; Manns,B.; Babiuk,L.A.; Zamb,T.J.
 Identification and deletion mutagenesis of the bovine
 herpesvirus 1 dUTPase gene and a gene homologous to
 herpes simplex virus UL49.5
 JOURNAL (SO): Virology., 195 (1), 42-50 (***1993***)
 OTHER SOURCE (OS): CA 119:153149
 REFERENCE:
 AUTHOR (AU): 5 (bases 9662 to 11962)
 TITLE (TI): Carpenter,D.E.; Misra,V.
 Sequences of the bovine herpesvirus 1 homologue of
 herpes simplex virus type-1 alpha-trans-inducing factor
 (UL48)
 JOURNAL (SO): Gene., 119 (2), 259-263 (***1992***)
 OTHER SOURCE (OS): CA 119:42360
 REFERENCE:
 AUTHOR (AU): 6 (bases 11963 to 15012)
 TITLE (TI): LaBoissiere,S.; Trudel,M.; Simard,C.
 Characterization and transcript mapping of a bovine
 herpesvirus type 1 gene encoding a polypeptide
 homologous to the herpes simplex virus type 1 major
 tegument proteins VP13/14
 JOURNAL (SO): The Journal of general virology., 73 (Pt 11), 2941-2947
 (***1992***)
 OTHER SOURCE (OS): CA 119:89230
 REFERENCE:
 AUTHOR (AU): 7 (bases 15007 to 22448)
 TITLE (TI): Vlcek,C.; Paces,V.; Schwyzer,M.
 Sequence of BHV-1 UL46 to UL41 genes
 JOURNAL (SO): Unpublished
 REFERENCE:
 AUTHOR (AU): 8 (bases 22099 to 23813)
 TITLE (TI): Simard,C.; Bastien,N.; Trudel,M.
 Sequencing and 5'- and 3'-end transcript mapping of the
 gene encoding the small subunit of ribonucleotide
 reductase from bovine herpesvirus type-1
 JOURNAL (SO): Virology., 190 (2), 689-701 (***1992***)
 OTHER SOURCE (OS): CA 119:89863
 REFERENCE:
 AUTHOR (AU): 9 (bases 23481 to 31444)
 TITLE (TI): Simard,C.; Langlois,I.; Styger,D.; Vogt,B.; Vlcek,C.;
 Chalifour,A.; Trudel,M.; Schwyzer,M.
 Sequence analysis of the UL39, UL38 and UL37 homologs
 of bovine herpesvirus 1 and expression studies of UL40
 and UL39, the subunits of ribonucleotide reductase
 JOURNAL (SO): Virology (1995) In press
 REFERENCE:
 AUTHOR (AU): 10 (bases 1 to 31444)
 TITLE (TI): Schwyzer,M.; Styger,D.; Vogt,B.; Lowery,D.E.;
 Simard,C.; LaBoissiere,S.; Misra,V.; Vlcek,C.; Paces,V.
 Gene contents in a 31-kb segment at the left genome end
 of bovine herpesvirus-1
 JOURNAL (SO): Unpublished
 REFERENCE:
 AUTHOR (AU): 11 (bases 1 to 31444)
 TITLE (TI): Schwyzer,M.
 JOURNAL (SO): Direct Submission
 REFERENCE:
 AUTHOR (AU): Submitted (21-SEP-1995) Martin Schwyzer, Institute of
 Virology, Faculty of Veterinary, Medicine, University
 of Zurich, Winterthurerstr. 266a, Zurich, CH-8057,
 Switzerland

FEATURES (FEAT):

| Feature Key | Location | Qualifier |
|-------------|----------|----------------------------------|
| source | 1..31444 | /organism="Bovine herpesvirus 1" |

misc-signal repeat-region 200..207
 misc-signal repeat-region 235..430
 mRNA 466..1280
 gene exon 466..1280
 gene exon 473..1280
 CDS 486..1229
 polyA-signal 1259..1264
 polyA-signal complement(1649..1654)
 CDS complement(1658..2860)
 TATA-signal complement(2985..2991)
 CDS complement(3040..4038)

```

  /strain="Cooper"
  /db-xref="taxon:10320"
  /clone="HindIII fragments N, J, M,
  I, E"
  /note="octamer box"
  /rpt-type=DIRECT
  /rpt-unit=235..248
  /gene="circ"
  /standard-name="LR1.1"
  /note="transcribed from
  alternative late promoter"
  /evidence=experimental
  /gene="circ"
  /gene="circ"
  /standard-name="IER1.5"
  /note="IE transcription over
  covalently joined genome ends"
  /number=2
  /evidence=experimental
  /gene="circ"
  /note="product of IER1.5 and
  LR1.1; homolog of VZV ORF2 and
  EHV-1 ORF3"
  /codon-start=1
  /product="circ"
  /protein-id="CAA90913.1"
  /db-xref="GI:995627"
  /db-xref="SPTREMBL:Q01342"
  /translation="MGARASAPAAGPPPAHAVLL
  DALSGGTIDLPGGDEAVFVSCPTT
  RPVYHHMRRGRTAHTPVHFVGRAYAILPCRKFM
  LYLMRGAVYGYEPTTGLHRLADS
  LHDFTTAGLQQQRDLHCLDTVLDQMDPVTFTT
  PEILIELEADPAFPFFFFPSARARRS
  TLRRASMRPARTFCPHQLLAEGSILDLCSPQA
  AAPGCSLLPACDSGDAACPDCAGE
  TARDCATAARAPSPGALSRYSSVRSVFF"
  /gene="circ"
  /note="IER1.5 and LR1.1"
  /note="BICP27, UL53, UL52"
  /function="early protein affecting
  3' mRNA processing"
  /note="homolog of ICP27 (UL54) of
  HSV-1"
  /codon-start=1
  /product="BICP27"
  /protein-id="CAA90914.1"
  /db-xref="GI:995628"
  /db-xref="SPTREMBL:Q01354"
  /translation="MADPEIATLSTASESDDLSL
  FGSDREEDDEAPSLAPALRSVVGQ
  VRKRKLEGADEDEPMPAEPPGEGAASGDGGPAEAP
  PARRARVRPRRPRRPQQRRQPAGE
  QRSRGPAAKREAALATSSHGGGAAARSIGSSLR
  LARSLAEAAQRATAERVTAVFAGA
  RLDLMRPVQNGGFRAAGVSPWAAVLDFGAEQFVP
  EGRRVTWETLMFHGRDLYRMEVR
  PHAAQAARALRDLVRLRSANLVDALASADECWTWC
  KFIATKNLRLRTKDPIVATAGAVL
  ENRLKLAPFLRCYLRGRGLPSLEELCAARRLSL
  ATCPASYYMFVMLARLSRAVRSGAE
  CVPLLEVTVGDAPFEYIPTGTCVAGLIDALDTHK
  QACDSMTCKLVANFTLVPVYMHGK YFYCNEIF"
  /note="BICP27"
  /note="glycoprotein K"
  /codon-start=1
  /product="UL53"
  /protein-id="CAA90915.1"
  /db-xref="GI:995629"
  /db-xref="SPTREMBL:Q65816"
  /translation="MLGGRTVNLAALALLTAHL
  ALALWVALAARCQRCACVRATARN
  GSLRWELRSPGAVVVWGGANNATLAADAPCRHAV
  VQHIPPGLLDGDEALHGRVRAVAG
  ARDCRAYLWCAQARGGLLAWLLYVAFVYLRQERR
  MFGLCRNDADFLSPGGYTLNYAAA"

```

ALAAVVGHPYTKLARLMCELSARRRALAVDFRL
DPLGCAWRPRAALPLLAEGFARLG
ARIAAAGSVGITHPCAAAYPLYLKIWAWHVALF
AGLELVSLLYRKPRRRGGTCAGDG
GDGGESGIRKVCVNCCSTLLAGLLVKALYLAIV
GGVIALLHYEHNLLRLLLGAQT"
/note="component of DNA
helicase/primase complex"
/codon-start=1
/product="UL52"
/protein-id="CAA90916.1"
/db-xref="GI:995630"
/db-xref="SPTREMBL:Q65817"
/translation="MDGPAALEDALQILYATDGC
AIGFSLMLLTGQEEPGRGAYVVSY
NWPGRLLAACLGGESPNDVALALADARPLVAFYLL
GGPPGGSAAATPRLLRVLRVHLQQR
AGRARARRRTAPRQGPTRARAARAPRRGRHLCAA
RGHDHALLVATEQLAPRTGRTADD
ARYVEGQTTVRSALRARPAGRRGLASLYIHHEHK
TVAAYRRLYSNSGATPFWFLSKFG
PGEKTLVLATRFYVFQAERAGDAATYDLQAVRDC
LATYAVAAPPNPSGLAFPDLVSFA
ALAAFCCRSGYARGAVAAGAPAYVAARIEADLAE
VRCLREYIDHDRRSLKVADPEFVA
YVYLAYFEGFNRRQITEHLRAVTATEPPDGGEAL
APRLAGVSRLRERAVDAFFRHVRA
QFNVQSYIEQNVAVAVRLPPATAEAYARARTYA
RLLAATANGPGRTICDGAAALRAA
LDHLEGQAARFGWVLHAPGAPSASAVPGPGLDAA
LRVGAPDGGASPATPACCGVSKR
LLELAAAARDGAHPLDGLFGARGTAAPTPVYRV
ELPRGHQAFAVADGDDWAAVTSVA
ALDPDEVAVEVAAAAAAAESGRDALVERDARLT
ALLTERAACAGRSDRRSLGPAAP
RDQYYVNRNELFNARLAVTNIVLDVDFRLKRPLP
RGDLHGAMRSFRRGALAALALFP
EIAADAWPAHPCFYKSACPSAAASNLGDGDASP
SWAAPDRDAGWDEYESALAREGEA
QYSCEDVSDPAGARPEETGAEAGAGSAAALTTAC
GCDDKMGFRVAVPVPAPYIIAGGP
TLKGIARLVQHAVMLERPFAEAMSRYLRDFAFVD
AAVYTHGSLRLPFFGKPDAAASNV
GRWLLPFYVPERCDDVAAFVAAHRDPHHFHFA
APPAGGRREARRAHVGGEYVSFFE
RKAANRAAFHGVRVSLRRAAAGVGDGGDRGAV
EEFIADVIEAELAPYMAEHYPQAA
REYQGAGARLVAAKADWLLAQLVPARAGTAQGFG
CLRAAHGRAAQNKARSLVSLSVDS
HDRLCASLIQQCFATKCGSNRLGTFTVDSLGRA
ARYAARGADC"
/codon-start=1
/product="UL51"
/protein-id="CAA90917.1"
/db-xref="GI:995631"
/db-xref="SPTREMBL:Q65818"
/translation="MALQRLVGWLGRGGGTRDA
PQYEPLARRLSGPTLFRLQEAVVA
VSALLPAPLTVEDVARSADGTRRLAKAQLSARTY
YICQRNIECLSKHQAAACSDASITA
VVTKHIQDAQMRDTCALAALLQMYHSGAVEGTT
DSMVDQAIRMAAESENIVMADVAVL
ERALGIQAQGAGAAARASPTAVGAEARAPPPL
PRQPAASAPVAVSPAPPVAPAEAA
ATKPPSRAGRAAAAASSPAVLQLAA"
/note="UL51"
/note="intergenic region between
convergent UL51 and UL50"
polyA-signal 7976..7981
misc-feature 7982..8028
polyA-signal complement(8029..8034)
CDS complement(8045..9022)
/note="UL50; noncanonical"
/function="deoxyuridine
triphosphatase"
/codon-start=1
/product="UL50"
/protein-id="CAA90918.1"
/db-xref="GI:995632"
/db-xref="SPTREMBL:Q89932"

| | | |
|--------------|--------------|--|
| | | /translation="MANSAAATTATMSGDRGILV VELNAEAAPWRLESCCEPDSDLALW GPIAPAAKRDETAPSGSLLYSRLINLNMKAAAG GYAIIMSQMRSGDTHMPRPPAVAV GIVDSGYSGILRAIVWAPESAAAAPPAGLALRLT LARLTTTLPRLIAVDDDANAGTEA GVEVPFFATFAPKRDEDAGYDIAMPYTAVLAPGE NLHVRLPVAYAADAAHAAAPYVFGR SSCNLRLGLVLPPTAWPPGEPCRFLRNVTQEPLV AAAGQRVAQQLLLARRLEWLPSGL NDREPFTSPRAAPPAGPAPRLWRRVADLAAAV PPSARGPRGFGSTGL" |
| CDS | 8970..9260 | /codon-start=1 /product="UL49.5" /protein-id="CAA90919.1" /db-xref="GI:995633" /db-xref="SPTREMBL:Q89806" /translation="MPRSPLIVAVVAAALFAIVR GRDPLLDAMRREGAMDFWSAGCYA RGVPLSEPPQALVVVFYVALTAVMVAVALYAYGLC FRLMGASGPNKESRGRG" /note="UL49.5" /note="UL49" /note="homolog of HSV-1 VP22 (tegument protein)" /codon-start=1 /product="UL49" /protein-id="CAA90920.1" /db-xref="GI:995634" /db-xref="SWISS-PROT:P30022" /translation="MARFHRSSEDDYEYSDLW VRENNSLYDYESGSDDHVYEELRAA TSGPEPSGRASVRACASAAAVQPAARGRDRAAA AGTTVAAPAAAPARRSSSRASSRP PRAAADPPVLRPATRGSSGGAGAVAVGPPRPRAP PGANAVASGRPLAFSAAPKTPKAP WCGPTHAYNRTIFCEAVALVAAEYARQAAASVWD SDPPKSNERLDRMLKSAAIRILVC EGSGLLAAANDILAARAQRPAARGSTSGGESRLR GERARP" /note="UL49" /function=" tegument protein which transactivates IE genes" /note="homolog of HSV-1 alphaTIF (Vm65, VP16)" /codon-start=1 /product="BTIF" /protein-id="CAA90921.1" /db-xref="GI:995635" /db-xref="SPTREMBL:Q65819" /translation="MSGRIKTAGRALASQCGGAA AATMDPYDAIEAFDDSLLGSPPLAA GPLYDGPSPARFALPPPRPAPLAALLERMQAELG FPDGPALLRAMERWNEDLFSCLPT NADLYADAALLSADADAVVGMYLAVPGDAERLD LNAHANQPLPAPPASEEGLPEYVA GVQAHFLAELRAREERYAGLFLGYCRALLQHLRA TAARGRGAAGAGAQADRLRQLVAA RYYREASRLARLAFAHMYVATAREVSWRLHSQQS QAQGVFVSLYYAWPQRQFTCLFH PVLFNHGVVALEDGFLDAEELRRLNYYRRRELGLP LVRAGLVEVEVGPLVEEPPFSGSL PRALGFLNYQVRAKMGAPEAEGGRLAPEREHSYA RPRGAINYGTTPAEMLRPPSPSEV LPCDPAPAATVRVASPATHLAQAPSAGAAPAEF AALAGLAKPGPAPLAAAPAQAPFA AALALAEPAALAPAPLAAAPAEPAAAVAGPSPA NPFGGTYDALLGDRLNQLLDF" |
| polyA-signal | 9231..9236 | |
| TATA-signal | 9288..9294 | |
| CDS | 9384..10160 | |
| polyA-signal | 10224..10229 | |
| CDS | 10275..11792 | |
| TATA-signal | 11892..11898 | |
| polyA-signal | 11892..11897 | |
| CDS | 11963..14182 | |

/db-xref="SWISS-PROT:P36338"
/translation="MDAARDGRPERRAVSGTYR
THPFQRPSSARRSAGRPARCRRGR
GAPRVRRPRPYFQRPDEDTSEDENVYDYLGD
SDSADDYDSDYFTANRGPNHGAGD
AMTDAPPERAPEGGAPQDYLTAHLRAIEVLPES
APHRSLLEARTARTVYAAQFPPRDL
SAGSKAPAQARRSLRGFPREGGGGGQEPGPDEG
DDAADLREDLVPDEAYAHLERDER
LSEGPPLLNMEAAGERSVVEELFTYAPAQP
QVEVPLPRILEGVRVPSAFFAQMS
LDALCRTPPNDQRVARERRAWEAGTPHGLLITT
WSTVDPEFSIGGMYVGAPEGTRPR
LVWRRAMKQAMALQYRLGVGGLCRAVDGAACRPL
RRCFSWRDALLRECATAIFCRGRG
ARAAPRRLPRPAVGLLAATQFTPPDASPHATLFR
GSMGSLIYWHELRVMLTAVPALCA
RYAGAGLQSAELYLALRHSEAPGYTANERYALS
AYLTLFVALAERGLRWLYLAGAHL
LGPHPTAAAFREVRAKIPYERLPLGSATLHDAEV
ETVDSATFQEALAFSALAHVYGEA
YVAVRTATTLLMAEYAVHAERRDVRQMTAAFLGV
GLIAQRLMGSLNLLNCVAGAAVY
GGRRVTVREGTLARYSLLADAALPLVRPVFLVEF
REARDGVMRELRLRPVASPPLAGK
RRVMELYLSDSIEALVGREPLGSRVPLGPLVDI
AEALADHPHLVTGDRGPRLGGR"
/note="UL46"
/note=" tegument protein"
/codon-start=1
/product="UL46"
/protein-id="CAA90923.1"
/db-xref="GI:995637"
/db-xref="SPTREMBL:Q65820"
/translation="MAWPAASRGLIERRAEKGCL
LPTLADATAAAAVVALQEATEPLCG
APLFGAERAALLGVRNAVPEALVLSDSAKDAD
DEYRLEYDRAARVLAGARLSKDA
VWRAVIGSYWKYLKASSGADVNDGAAGGAAMEQ
AQLTNVMLFAPTYARRASRSPFKH
KQDNAAYKAAAELRGALRAVEKYMYYMRPGDPM
VESPDTEARLQEILAYAATAYRWL
LWFMDALDGTVLRKLGKRPSSAVGPREPRPPGEL
CERHTGGPGIACGSGAALMLTAL
TAAVLALLLRVGAWTTESSWKSNTQGVTGAI
VELASAVHHHLQYLLNMAFVGYAC
WLRAGVRDPYMIAAIRACRFAHFTGQLMPTMTS
ASWAALERGTASWFKLALLKVA
HGAQTRYYSNIVESMRLGGSRGLLAPVRARPSGR
GRRCPQSLAARPLPSLPAAAAAPP
GSGSGSGSDSDSDDLGFPAPAVGVYASMRNLE
GAYADAGGPLSPAASAARREA
ENEGEGEFAPLPSAFAEDGSSDSADELAIDGPMP
APPPRGGRGADELAIDGPMPAPPP
RGGRGADELAIDGPMPAPPPRGGRGASAGRLQYA
DSRAVSSSSDEDEGKDEDENKAGA
TAPLAADPESELARAMRRCSLRVPASAPAPAP
CTERPGNPTRSYSRSRPLRALDD
RHGLEALAAAGAAHTARHNRDVWQRFSRVCEAGD
DYENYDEARGAERGHLSASCARAP EVERVTSL"
/note="UL47, UL46"
/note="intergenic region between
convergent UL46 and UL44; no BHV-1
homolog of HSV-1 UL45 found"
/note="UL43, UL44"
complement(16613..16618)
complement(16683..18209 /function="glycoprotein C"
)
/codon-start=1
/product="UL44"
/protein-id="CAA90924.1"
/db-xref="GI:995638"
/db-xref="SPTREMBL:Q65821"
/translation="MGPLGRAWLIAAIFAWALLS
ARRGLAEEAASPSSPPSPSTET
ESSAGTTGATPPTPNSPDATPEDSTPGATTPVGT

PEPPSVSEHDPPVTNSTPPPAPPE
DGRPGGAGNASRDGRPSGGPRPPRPSKAPPKE
RKWMLCEREAVAASYAEPLYVHCG
VADNATGGARLELWFQRVGRFRSTRGDDEAVRNP
FPRAPPVLLFVAQNGSIAYRSAEL
GDNYIFPPSPADPRNLPLTVRSLTAAATEGVYTWR
DMGTKSQRKVVTTHRAPAVSVE
PQPALEGAGYAAVCRAAEYYPPRSTRLHWFRNGY
PVEARHARDVFTVDDSGLFSRTSV
LTLEDATPTAHPPNLRCDSWFQSANMERRFYAA
GTPAVYRPELRYVFEGLGEAVCEA
RCVPEGRVSLRWTVRDGIAPSRTEQTGVCAERPG
LVNLRGVRLLSTTDGPVDYTCAT
GYPAPLPEFSATATYDASPGLIGSPVLSVVAVA
CGLGAVGLLLVAASCLRRKARARL "

TATA-signal complement(18301..18307 /note="UL44"
)
CDS complement(18388..19524 /codon-start=1
)
/product="UL43"
/protein-id="CAA90925.1"
/db-xref="GI:995639"
/db-xref="SPTREMBL:Q65822"
/translation="MFASVRVSGCAGARAGCGPC
ALAATGALVAMGHTHTGLMAAALAT
VGRAQDPAALALATATAAAALVCWRPAAQTLRRR
LAPLGRLAQALAVAAAALAVWATDP
APAVLRGVTTGAAAAYVVCGVPVHCAHFVTAASG
TGAHFRTALLTMTCGLLGLSAGR
WGarPEALAAAGAAAALVVAATDAAALEDTCHY
KIWRYAALRTLAPLGEAACPADPC
GAREDAVPMRALARA AAAELALSAAALAAAALW
APGRALGLEGGGRWRTRGAVLLSV
AGGHGVALAEHLCLRYARADAADGALMAHVGICA
LGAALPLCGADGGAPAALASAAAG
TLVACVWVRRCGRGTARLAAHVAKALHAALCFC
VGACWVCADE"
polyA-signal complement(19582..19587 /note="UL42"
)
CDS complement(19597..20823 /function="processivity factor for
DNA polymerase"
)
/codon-start=1
/product="UL42"
/protein-id="CAA90926.1"
/db-xref="GI:995640"
/db-xref="SPTREMBL:Q65823"
/translation="MLQPPSHLRADEGEARLTAG
LSDGGNGNPIASASLIGRQLADVS
ALLSPFGASLRNAFLVFSREGMLVHSGLYDEQVY
VAVPAEKFTSFQWAPARDDARAVF
LANVDSRRGLLDAFRADKTRTVQNVAFITGEPP
ASVLTQVTFREADALLQASLVKH
ELGEYSIMLPTRGADLAVSLSRPQLSKLQAVAKD
PNEAVVFAYRRARCLSAESASGRA
SFAARHEGGESGAEQLQALAPSAGSERIFARAQG
GRRRAALLEVRCSSGGAPDFRLE
SPSGFRRLLQKVRQVGGDALVRFYLAPASAAMMS
VSTAAPEGLTVFFFCRPATATASA
DDADDCAEPAPRPAKRPAAAGQPRRGAGAGIQT
DGAHPVAVSGGRKRPRAADAGAP
GPSSGPDGRGEGGETP"
TATA-signal complement(20903..20909 /note="UL42"
)
CDS 21068..22447 /function="virion host shutoff
factor"
/codon-start=1
/product="UL41"
/protein-id="CAA90927.1"
/db-xref="GI:995641"
/db-xref="SPTREMBL:Q65824"
/translation="MGLFKLLRYAYGNRLVKHDA
ITTPPGVMTPIAVDLWNVMYTLLE
RFCGDAPGGVGDAAAATARCFLSLLRMLLKRSYYP
IFVADRGHIGDERRATRGAKAIVAQ
TMRAVGGSGRLGRLVSDDYTSEDEVLGAYEYPVP
HADAAADDDEEATAKEFAGRASAG

AARANAPKLAHRVCVSLIRFLGYAYVDAAEAEAD
DVCANLFHTNTVAHIYTTDTDMIL
MGCDLILDAAPLFPPTLRCRDVLASLGLTYGQFL
ATFVRCHTDLHQPPMLRSVQQVVR
GLRRAAEAEPATTETESGSEREPESLGRPGAGP
RRRLPPAVDDPLKTTTPATVEAHS
VRMKYTSRYPPIAQTCADALRLLPASQTRGGVLE
RKFVKHVVDTIAPMRGRWAVLKR
VPIAQDAPDPPRLVYDTIVSAVGSAEADTLMGLF
WKHRIPTPPPFAKVLADYWDEAPAG
PGSRRTRQ"
polyA-signal 22443..22448 /note="UL41"
mRNA complement(22475..23602 /gene="UL40"
)
gene complement(22475..23602 /gene="UL40"
)
/evidence=experimental
polyA-signal complement(22494..22499 /gene="UL40"
)
mRNA complement(22495..26048 /gene="UL39"
)
gene complement(22495..26048 /gene="UL39"
)
/evidence=experimental
CDS complement(22563..23507 /gene="UL40"
)
/function="ribonucleotide
reductase small subunit"
/codon-start=1
/product="UL40"
/protein-id="CAA90928.1"
/db-xref="GI:995642"
/db-xref="SWISS-PROT:Q01319"
/translation="MAEAADAATLTRKYKYFYET
ECPLDLHRLSLSVANRWLETEFPL
ADDAKDVARLGAELFYRFLFAFLSAADDLVNV
NLGDLSELFTQKDILHYYIEQESI
EVVHSRVYSAIQLLLFRNDAVARAGYVEGALGDP
AVRRKVDWLERRVAAAESVAEKYV
LMILIEGIFFSSFAAIAYLRTHNLFVVTCTND
LISRDEAVHTAACCCIFDNYLGE
RPPPARIYELFREAWKLSASLFGCAPRGSHILDV
EAISAYVEYSADRLLAAIQLPPLF
GTPPPGTDFPLALMTAEKHTNFFERRSTNYTGT
INDL"
CDS complement(23526..25889 /gene="UL39"
)
/function="ribonucleotide
reductase large subunit"
/codon-start=1
/product="UL39"
/protein-id="CAA90929.1"
/db-xref="GI:995643"
/db-xref="SWISS-PROT:P50646"
/translation="MASDAFMQTACPADAAEQL
AEHAEWAQLGCGAVPPPPAAASRP
SRAAAVAYGEVVDRMRAQSRADERVYVKCGQLV
HLRVRARSVPPLDDWLTSALALVS
EVAEPVRANRAFVEVSLRYFELTEYATLRALGLQ
SALKYEEMYLAKLEGGAIEMSGQF
FVRIAATAATWTMREPAFGRALVGE
GEGATWCAVFN
AYLTALYRQLVVPATPIMLFAGRA
RGSLASCYLLNPQVSSSTEAVEAITTEVARILLN
RGGIGISFQSFDRAVSRDCKRGIM
GALKLDSMAMAINSDSERPTGICVYLEPWHCDV
RAVLNMRGLLARDESTRCDNLFSC
LWVPDLLFDRYLAHLEGREGVVWLFDDRASHLS
RLHGPFTA
EYERLEREGLGVETV
PVQDLAFLIVRSIVMTGSPFV
MFKDACNRHYMD
TAGDALTG
SNLCTEIVQRASPD
AH
GVCNLASVNL
PRCVREGE
GGALAFD
FAAL
STAAA
TAAIFVN
AMMLGGQY
PTEKA
ARGV
ARHRS
LGIGFQGL
HTLLE
LGMDML
SPAARR
LN
V
EIAER
LLL
AVMAT
SATL
CEYGC
AP
FEDFARSK
FARGL
MPFDGY
EGVV
SLP
RAWARLR

EKVARHGLYNAQFVALMPTVSSSQ
VTEGSEGFSPVFTNMFSKVTMSGELLRPNLPLMR
ALRKHFTREASRLGAVRALDREQW
SVAAALGDLAPGHPLAKFKTAFEYDQERLIDLCA
DRAPFVDQSQSMSLFVTPEMDGKV
PASQIMNLLVYAYKKGLKTGLYYCKIRKATNNGV
FTGGDLVCSGCHL"

TATA-signal complement(26119..26125 /note="UL39"
)
polyA-signal complement(26202..26207 /note="UL38"
)
CDS complement(26231..27655 /note="homolog of HSV-1 capsid
protein VP19C"
)
/codon-start=1
/product="UL38"
/protein-id="CAA90930.1"
/db-xref="GI:995644"
/db-xref="SPTREMBL:Q89542"
/translation="MAAPNGSSSYIQIGNHLRMR
LPAAAPPFSGVPAAAAAAAEEASAA
EAGVQSVTAPAVGARGRGRGYNPWAGGMLHVS
DATVTIQNMSGIQIVTPRQIAVDT
PAGTAVLSPGGQPHIRLSRQVTLTDFCDPQLERP
GAPVLTALKHPADIIGLAAAAAPPG
RQFRDVEEAWRDLGDASSVGAVPPGGLRASLVSF
SFLAAACAAEYGNRAAADALRAHL
ISNSGDRRMALRLDRFYACLQAMIRCRAFPHQAL
GCLGGLLSWTTQDKLASVTAVVCG
AQEGARTDQAAHPRSTAHVPACAFLDVDAELRLE
PAGVKFVYLVFVYTQRLEHEGFRA
HVAVSKLNNTTFASGLSYLLHRTRAENVLRGTAG
DAAEVAGADEFPLPALANSRAAY
RCPVSRIGDCDATAFLPRWAPDAAGRPTRESCMY
AAFARLGLTPHDSPRVTCRSERYQ
SCDVPVVKIEGLVWGTGDWECFY"
TATA-signal complement(27720..27726 /note="UL37"
)
CDS 27871..30945 /note="tegument protein"
/codon-start=1
/product="UL37"
/protein-id="CAA90931.1"
/db-xref="GI:995645"
/db-xref="SPTREMBL:Q89815"
/translation="MSGDPVRALWAALERLDGEV
AGPAALAEARAASVSEFLASGPSS
LDFVAPRWAALQRAACRAYERLHTPDAALLAENL
PGVLWRLPGAARDTADFMAGVRD
LANSMIAEAPLGYLAAARLRATAAFGPVNMQRVV
VEWASLFLFLEIYAREDAACVGVLGP
DPACRSPAGSAAVRPLLQSRFRLLYDMPFFQAG
LSALAHAAANWKVPMMAAVARRAADA
AAPPLARALFAVALVDEYFPEPDDEDTAPGLAEA
FAEIADLVPPEALVPAGEANAFAR
SSHDVRVSAALAYRDPFVRGAAAGSVAARVRADA
GLLADDTLLGRDAVAHVAGAVVRL
LERAARATPAALGRVAEHAIAVWDQVQASATPD
QAVETLAAAGFTPGTCAMLERAVL
AQLSRPEPRAVADVLQAVGCVAVAGGVLFKLFDA
YGPSADYLHYTATIANLHPYYAD
VLPLLGLPDGGLEQTIRHCMAPRPTDYVAAIR
ALAAEAAAADKRAASASARAAS
SGDRAAAGAAAREALLTWFDLRASERWGVA
EAPPAEEAARSAPAAGGASAAELAR
AARALEFPRTDAVPAAVLRDPAFAPHFAAVLSD
VILVAADALPFSANGVAQLMIAIW
ARDCGAGAVANVDGYRTKLSALAAGLWPFVDASA
PAPTTQVRNAEAVLGEHTVATT
AAECLPPEVRPPVPARPRVGGCVFLASMYLHA
ARLQGYVAETEALAAASMAAVGDV
AGAVARLGVLFDCFHASVPGQQMLAIYATRGAPC
ALGAWRSAIDLADAVRGARAEAA
RAEVRVSLAALQRAAAQTTQALQECEAADARPPG
GGLDDEHRLLAGHSALVRAQTAL
ALAAGKLVAGAEAPGLHEVGRFLQRWDAIGAALG
RALDDSAGERDVAELVARLRGVWD
EVQEDRRVAAAPGPPRSAANAAAAEEAVLALLEGY

PEVRGDEGSPALLDARADVADWAG
VDRGPLQRASAGADAAASAAAANTAAGPWL TTE
DLLAEVDGVCA SRPAAR"

SEQUENCE (SEQ):

| | | | | | | |
|------|--------------|-------------|--------------|--------------|-------------|-------------|
| 1 | ggcccagccc | ccgcgcgggg | ggcgcggaga | aaaaaaaaat | ttttccgcg | ccgcgcgtgc |
| 61 | attgcggcgg | gcgggggggg | ggtgggggat | gggcgcggag | cgcgaggta | gggtggcac |
| 121 | actgccaaga | tcaccatcgca | tgtgcgcgc | catttgtctt | ccaaactcat | tagcatacc |
| 181 | cgcattat | tccattctca | tttgcatacc | caccgttgca | catgccca | tattgtcct |
| 241 | cctccctcgc | tcctctccc | tcgtccctcc | tccctcgctc | ctccctccct | getcctccct |
| 301 | cctcgctcct | cctccctcgc | tcctccctcc | tcgtccctcc | tccctcgctc | ctcctccctc |
| 361 | gctccctcctc | cctcgctcct | cctccctcgc | tcctccctcc | tcgtccctcc | tcctcgctc |
| 421 | ctccctccctc | gctcccttc | aaaacactac | cgcggcggtc | cgtctcaact | agcttcggcg |
| 481 | ccgtcatggg | tgcccgcc | tccgcgcctg | ctggccggccc | gcccccagcc | cacgctgttc |
| 541 | tactagatgc | gctctccggg | ggcacgattg | acctgcctgg | cggcgacgag | gccgtctttg |
| 601 | tgtcctgccc | gacgacgcgc | cccgtgtacc | accacatgcg | ccgccccgc | acggcccaca |
| 661 | ctacacccgt | gcacttcgtt | ggccgcgcct | atgcatctt | ccctgcccgc | aagtttatgc |
| 721 | tgtatctgtat | gcccgggtgg | gcccgttacg | gctacgagcc | caccactggc | ctgcaccgccc |
| 781 | tcgcccatttc | actgcacgac | tttcttacta | ctgcccggact | acagcagcga | gacctacact |
| 841 | gcctcgatgt | cacgtgtctt | gacgcgcaga | tggaccgggt | gacgttacc | accccgagaa |
| 901 | tcctcatcgaa | gctcggggcg | gaccgggct | tcccaccggc | gcccggccgc | cgcgcgcgc |
| 961 | gctccacgcgt | gcccggggcg | tctatgcgc | ggcccgacag | caccccttcgc | ccccaccagc |
| 1021 | tgtcttagcaga | gggctccatt | ctggacctct | gctcgcaggaa | gcaagccgcg | gcgcggggct |
| 1081 | gttcgctgt | ccccccctgt | gactctggag | acccgcgcgt | cccccgtgcac | gctggcgaga |
| 1141 | ccgcccgtga | ctgtactgccc | gatgcgcgc | gcgcctcccg | cccccggcc | ttatctcgct |
| 1201 | atagctccgt | gcgctcggt | ttcttttagc | gcccggggcgc | ccgtgtggga | catacattaa |
| 1261 | taaatgcagc | gtttttact | ctactgttagt | ggctggccgt | ttgcttctt | ttgggattgg |
| 1321 | caatttagcg | ttccgtcgac | gcccacatctt | ttgcctttct | gtttcccggt | gcgtgcgcgt |
| 1381 | gtgtcgccga | gccgacttgc | cccgcacaaca | caggcaggca | cgccggcccg | cgccccgcca |
| 1441 | ggcactattt | gctcggtgt | gcattgagct | tgactttgac | tcgcttttgt | gcccgcgc |
| 1501 | aattatttgc | cttggcccg | tgtgttcccc | ccgcgcgcgc | ttgtgcgc | caagccgcgc |
| 1561 | cgccccgatag | cgcccccgcg | cctgtgtccc | caacaagttac | tatacacact | cgagtataatc |
| 1621 | gggttcaaat | caatgttgc | agggtgactt | tattagctta | gaagatctcg | ttcagtaaa |
| 1681 | agtattttcc | gtgcgtgtac | acgggaacca | gggtgaaatt | agcagcagac | ttgcacgtca |
| 1741 | tgctgtcgca | agcctgtttg | tgtgtgtcca | gggcacatcgat | gaggccgc | acgcagggtcc |
| 1801 | cggggatgt | ctcctcgaaa | ggcgcgtcg | ccacagtcac | ctccaacagc | ggcacgcact |
| 1861 | ctgcgcccga | gcccacgcgc | cggtttagac | gcgcacaat | cacgaacatg | tacgatgcgg |
| 1921 | ggcagggtgca | gaggcttagc | cggcgcgcgg | cgcagagctc | ctccagcgag | ggcagccgc |
| 1981 | gcccgcgcag | gtagcagcgc | agaaaaggcg | ctagcttcag | ccgcaggtt | tccagcacgg |
| 2041 | cgccggccgt | ggccacgata | gggtctttgg | tgcgcaggcgc | caagttctt | gtggcgatga |
| 2101 | acttgcacca | cgtaggcac | tcgtcgccgc | agggcagtgc | gtctaccagg | tttgcgtctc |
| 2161 | gcagcaccag | gtctcgacgc | gcccgcgcgc | cctggcgggc | gtgcggcgc | acctcaaaca |
| 2221 | tgccgttagag | gtccggggcg | tggaaacatga | gctgttccca | gtgtacgcgg | cgccctcg |
| 2281 | gaacgaattt | ctccgcgcca | aagtccaaaga | cggtctccca | tggcgacacg | ccgcgtcg |
| 2341 | gaaacccgccc | gtttgtcacg | ggccgcgtatga | gggtccagtgc | cgcccccgcg | aagacggcgg |
| 2401 | tgacgcgcgtc | ggccgtggct | cgctgcgcgc | cttcggccaa | gttcgcgc | acgcgcagcg |
| 2461 | agtcggcgat | cgagggggcg | gccccggcccc | cgccgcgcgt | tgaagacgtc | ggagggccg |
| 2521 | cctcgccgtt | tgctccgggg | ccgcgggacc | gctgttcc | ggccgggtgt | cttcggcg |
| 2581 | ggcgcctgca | cgccgcgcgc | ggccgcacgc | gagccgcgc | cgccggaggt | gttcggcg |
| 2641 | gaccgcgcgtc | gccgcttgcg | gcgccttgc | ccggcggtc | ggccggatc | ggctcgccct |
| 2701 | ccgcgcgcctc | cagttgcgc | ttgcgaacct | gccccaccac | ggagcgcagg | gggggagcga |
| 2761 | gcgaggggcgc | ctcgctgtct | tcttcgcgtt | cagagccgaa | gaggctaag | tcgtcgctc |
| 2821 | cgctggccgt | gctgagggtt | gcgatctcg | ggtccgcatt | gccgctcg | ctcgccggcg |
| 2881 | tcgtcgctcg | gccgggtgcg | tcgcgttgc | ggccggacgg | tcgggtctc | gcgtttctaa |
| 2941 | aagagggtc | gcactccggc | gcccgtttcg | cactgagacc | ggcattttat | gttcgcggc |
| 3001 | cccaccctgc | gcggcagcag | cgccgcacca | taggggcgtt | cacgtctcg | cccccagcag |
| 3061 | ccgcaggcgc | agggtgtgt | cgtagtgac | cagcgcgtat | acgccccca | cgatagcg |
| 3121 | caggtagagc | gccttacga | gcagccccgc | gagcagcgt | gagcagcagt | taacgcacac |
| 3181 | ctttctgtatc | ccgcgtcgcc | cgccgtcgcc | gccatcgcc | gcccacgtgc | ctccgcgc |
| 3241 | ccgcggcttg | cggtacagca | gcgcagaccag | ttccaatccg | gcaaaagaggg | cgacgtaaac |
| 3301 | ccacgcccag | atttcaggt | acagcggta | ggccggccgc | cagggtgcg | ttatgcgac |
| 3361 | gctggggccc | gccgcaatcc | gcgcgcccag | ccgcgcacaa | ccctcccaa | gcagcgggag |
| 3421 | agcagccccg | gggcgcgcagg | cgcaagccag | ggggtcgagg | cggaagtgc | cagcaagcgc |
| 3481 | gcgcggcg | gccgagagct | cgcacatag | ccgcgcgcgc | ttcgtgtac | ggccgtggc |
| 3541 | gactacggcc | gcgagcgcgg | cgccggcgta | gttgggggtg | tagccggcg | ggctgagggaa |
| 3601 | gtcggcg | ttgcggcaaa | gaccacacat | gcggcgctcc | tggcgacgt | acacgaacgc |
| 3661 | gacgtacagc | agccatgcca | gcaggcccgc | gcaaggcgtc | gcccacacaca | gttaggcgc |
| 3721 | gcaatcgcc | gcgcgggcca | cgccgcgcac | gcccgcgtgc | agcgtctcg | cgccgtcg |
| 3781 | cagccccggc | gggatgtgt | gcacgcacgc | gtgcgggcac | ggggcgtcg | ccgcgagcgt |
| 3841 | gcgttgttgc | gcgcggcccc | agacgttagac | ggcgcgggggg | ctgcgcacgt | cccaagcggag |
| 3901 | cgaggcg | cgccgggtgg | cgccgcacca | cgccacacgc | tggcagcgg | cggcgcgc |
| 3961 | gaccacacagc | gcaagcgcga | gtggggccgt | gagcagcgc | agcgcggcca | agttaaacagt |
| 4021 | ccgcccccccg | agcagcatac | cgccgcgcgc | gccccggag | atccacggtg | aacacgttac |
| 4081 | cgaggcggtt | gctgcccgcac | ttggtagcga | agcaactgtgt | gatgagcgc | gcacacaggc |
| 4141 | ggtcg | gtcgacactg | agggacacca | gcaagcgcggc | tttgcgttgg | gcccgcgc |
| 4201 | cataaaccgc | gcacagocac | ccaaacccct | ccgcgcgtcc | ggccgcgc | ccacacgcgt |

4261 gcgcgcggcg ccagtcggct ttggcggcca cgaggcgcgc gccggccct tggtaactcgc
4321 gcgcgcgtcg cgggtatgtc tccgccccatgt agggcgcgc ctcggccctcg attacgtcg
4381 caataaaactc ttgcacggcg ccacggtcgc cgccgtcgac gccgacggcg gcgagcgcgc
4441 gcccggaggaa aacgcgcacg ccgtggaaagg cccgcgggtt gacggccggcc ttgcgtctaa
4501 aaaagctaac gtattcggcc ccaacgtcg caccgtcg ctcgcggcg cggcccgccg
4561 gtggcgcggc gtggaaagtgg aagtggtgcg gtcgcgggt cgcggcgcacg aaggccggca
4621 cgtcgctcgca ggcgtctggg accacgtaga agggcaggag ccaccgcggc acgttgcgtt
4681 cggcgctcggtt cttggccaaaa aaggccaaac cgcaggctgtg cccgtgcgtg tagacagccg
4741 cgtcaacgaa ggcaaaagtgc cgcacgtacg cgcgttgcgc tgcccttgcg cgtggggccg cccgcgatcaa
4801 gcatgacggc atgcgtggacg aggccgcgc aaggccat ttgtcgctcg catccgcacg
4861 tgtatggcgc cgggacggc acagccacgc ggaagccat ttgtcgctcg catccgcacg
4921 cggtcgttag ggccgcggc cttccgcgc cctccgcgc gcccgtctc tcaggccggg
4981 cgcgcgggg gtcgtgcacg tcctcgccgc tgatgtcg ctcgcggc gggcgttcca
5041 cgctctcgta ctcgtcccg cccgcgtcg ggtcgccgc gggccaggac ggcgacgcgt
5101 cggcgtcgcc taggttgcgt agcggccggc aaggccacgc gctttgttag aagaagcagg
5161 ggtgtcgccc ccaggcatcg ggcggattt cggggaaacag cggccgcgagc gggcaagcg
5221 cgcgcgacg gaagctgcgc atgcgtccgt cgcaggctcc gcgccggagg gggcgttga
5281 ggcggaaatgc caccgtccagg acatgttgg ttacggcgag gcgccgtt aacagctgt
5341 tgcgttccac tagtactgg tcgcgcggc cggccggcc caggctccgg cggtccgagc
5401 ggccggcggc acaggccgcg cgcgtactga ggagcgcggg tagccgcgcg tctcgctcca
5461 caagcgcgtc ccggccgtc tctgcggcgg cggcagcggc cggccgaacc tcgaccgcca
5521 cttcgccgg gtcgtggcg ggcacgtcg ccactcgta gacggccgtg ggcgcgggg
5581 cggcaaaatgc ctggtggcg cgcgttagct gatgcgcgc gtcgcgcgc gggccggccg
5641 tcccgccgcg cccaaagagc cgcgtccagg gatcgtcg cgcgcgcgc gggccggccg
5701 ccagctcaag tagccgttgc gacaccccgc agcaggccgg cgtcgcatca ggggacgcac
5761 cgcgcgtccgg cgcgcacaac cgaagcgcgg cgtctagccc cggcccccggc accgcgttgg
5821 cgcttggcgc gcccgggtgc tgcaaccc acccgaacgc accgccttgg ccctcgaggt
5881 ggtccagcgc tgcgcgcagg gcggccgcgc cgtcgcatat tgcgcgcgc gggccattag
5941 cggtcgcgcgc gagcaagcgc gcgtacgtac ggcgcgcgc gtaagccctcg gctgttgcgg
6001 ggggcagccg aacaacggcg accccacgt tctgttcgat tgcgtttgg acgttaaact
6061 ggcgcgcac gtggcaaaaa aaacgtcaa cggcgcgtc gcccggcgc gagaccccg
6121 cgaggcgcgg cgcgagcgc ctcggccat cggggggcgc ggtggcggtg acggcgcgc
6181 ggtgtcggt gatctgcgg cgattaaagc cctcaaaatg ggcggaaatg acgtaggcca
6241 cgaactccgg gtcggccact ttaagactgc gacggtcgtg gtcgtatgtac tcgcgcaggc
6301 agcgaccc tcgcgggtcg gcctcgatgc ggcggccac gtacgcgggt gccccgggg
6361 caaccgcgc cgcggcgtag ccgtcgccgc agcagaaggc ggcacgcgc gcaaggaaaa
6421 ccaagtcggg gaaggcgagt cccgggggt taggcggcgc ggcacggc tacgtggca
6481 ggcagtcgg cacggcgtc aggtcgtagg tagcggcgtc gcccggcgc tcagcttgg
6541 acacgtagaa ggcgttgcc aacaccaagg tttttcgcc gggccaaac ttggagagga
6601 accagaaggg agtcgcaccc ctgttggagt aaagcccg gtaggcgcg accgtttgt
6661 gctcggtgt gatgttaggc gaggttaggc cgcggccggc gggccggcgc ggcgcagg
6721 ccgagcgcac tgcgtctgg ccctcaacat agcggcggtc gtcgtcggtg cggccgtgc
6781 gaggcgccag ctgcgtccgt gccaccagca ggcgtgtatc atgtcccggt gcagcgc
6841 ggtgacgtcc tcggcgagg gctcgagcag cgcgcgcg ggttagggct tgccgaggag
6901 cagtgcgtcg gcgagcgcgc ggcgcctcg cgcgtgttgc aaggtgcaca cgaagacgg
6961 ccaggcgcgg ggtcgccgc gcgttccgc cggcggggc gcccagcaga taaaacgcga
7021 cgaggcggcc cgcacccgcg agcgccagcg ccacgtcggt tggctttcg ccaccaaggc
7081 acgcggcgag ccgcggggc cagttgtagg agaccacgt ggcgcacgg cggggctcct
7141 cctggcccgat gagcagcatc agcggaaaacc cgatcgccgca gccgtcggtg gctacagga
7201 tttggagcgc gtcctcgac gcggctggc cgtccatggc gtcgcacgcg ctggtcgggt
7261 ggctgtcggt ggcggccgg ggcacgcgag acgctccgca tgcgtacccg ctggcgcggc
7321 gcctgagcgg accgacgcta tttcgctgc aagaagcggt ggtagccgtc agcgcgtc
7381 tgccggcgcc gctgacagtg gaggacgtgg cgcgtcgcc agacggcgc cggcgcttgc
7441 ccaaggcgca gtcgtacgc cggacactt acatctgcca ggcggacatc gagtgcctct
7501 caaagcacca ggccgcgtgt agtacgcac gcatcaccgc cgtcgatgc aagcacatac
7561 aggatgtcta ggcgcacgc gacacctgcg tggccgcctt gttcaaatg taccactcg
7621 tggcgctgt ggaggcgacg acgacacgc tggtgacca ggcacatccgc atggccggcg
7681 aaagcaacat tgcgtatgc gacgttgcgg tgctggacgc cgccttggc attcaggcgc
7741 agggcgccgg cgcggaggcg gcggccagg gcaagccgac ggcgggttgc gccgaggc
7801 gggcccgcc gcccgtccg cggcagccgg cgcctcgcc gccgtcgcc gtgtctccgg
7861 caccggcggt ggcgcctgca gaggccggc ccacaaaacc acctagccgc gggggccgc
7921 cggccggcgc cgcgttccccc cccggcgat tgcgttgc ggcgtaccc ggtcaataa
7981 aagcaaaaaa agtatacgca aaacacgtgt gtggtggt cgtgtactt taatgtgtt
8041 tggtttacag cccgggtggac ccaaaacgcgc ggcggcccg cgcacgggg ggcaccgc
8101 cggcgagatc ggcgcacgc cgcacgcgc ggcgcgggg cccaggggcg ggcgggtct
8161 cgcgagggtc agttggaaag ggctcgccgt ctttgcggcc ggcacggaaac cactcgaggc
8221 gccgtgcgc gagaaggcgc tgcgcacgc gctggcctgc ggcacgcacg agcgttcc
8281 gcgtgacgtt tgcgtacgaca aagccggcagg gctcccccgg gggccaggct gtcggcagg
8341 cgatcagcccc ccgaagggtt caggacgtac gaccaaaacac tgcgttgcgc gcaacgtgg
8401 cgtctgcgc gtaggtctac ggcacgcgc cgtgtaaatt ttcccggtt gccaagacgg
8461 ccgtgtatgg catggcaata tcgtacccgg cgtccctcg ggcgttggg gcaacgtgg
8521 caaagaaggg cacttcgacg cccgcctcg tcccgccgtt tgcgtcgatc tcacccg
8581 tgaggcgagg cagcgtgtt gttagccgcg cagcgtcag ccgcacgc ggcacgc
8641 ggggagcgcgc cgcgtcgac tcggccggcc agacgtggc ggcacagatc cccgagtagc
8701 ccgagtcgac gatgccgacg gccacggctg gtggccgggg catgtgtgt tcacccg
8761 gcatatccgc cattataatg gcatatccgc cggcgcggc cgccttcatg tttaaattaa

8821 tcagccggct ataaaggaga gatcccacg gggctttt atctcgcttt gctgctggcg
8881 caattgggcc ccagagcgcc agcgagtcgg gctcacagca gcttccaac cgccagggggg
8941 ccgcctccgc gttgagctct acgacgagga tgccgggtc gccgctcatc gttgcggggt
9001 tggccgccc gctgtttgcc atcgtcgcg gccgcgaccc cctgctagac gcgtgcggc
9061 gcgagggggc aatggactt tggagcgcag gctgctacgc gcgcggggtg ccgcctcgg
9121 agccaccgca gcccctggtt gtttttacg tggccctgac cgccgtaatg gtcgcccgtgg
9181 ccctgtacgc gtacgggctt tgcttaggc tcatggcgc cagcgggccc aataaaaagg
9241 agtcgcgggg gcggggctga ttgaccgcgaa cgctcgagta taacttgtat ataaagctcg
9301 cggccccggc gaccgctgcc ttttcgcac tcggccgac ccgcttgag ctgcacgccc
9361 gcccggccgc cgactcgctt gccatggccc gttccacag gcctccgaa gacgaggacg
9421 attacgagta cagcggaccc tgggtgcgag aaaacagcct ctatgactac gagtccggct
9481 cggatgacca cgtatacgaa gagctgcgcg ccgcgacgag cgagcccgag ccgagcgggc
9541 ggcgcgctag cgtccgtgcg tgcgcgcg tagctgcgc ccagcccgcc gcccggggcc
9601 gcgatcgagc cgcagccgcg gggacgaccg cgcgagctgc cgcgcacccg cccgtctcc
9661 gtcgagcag cccggcgtcc tcgcgcgcg cggggcag cggggcgtccggt ccacctcgac
9721 ggcggccac ggcgggggtcc tccggcggcg cgtctggccg gccgctggcg tttagcgcgg
9781 ctcgcgcgc cccgggtct aatgtgttgc gaccgacgca ccctacaaac cgaacgatct
9841 ctccaaaaac gcccaaggcg ccctgggtgt agtacccccg gcaggcggct gccagcgtct
9901 tttgcgaggc cgtcgcgtct gtggcgcgcg gattggatcg catgttgaag tcggcggcaa
9961 gggactcgga ccccccaag agcaacgacg ttctccgcg cgcgaacgac atcttggcg
10021 ttcgcaccc cgtgtgcgag ggctccgggc gcacaaggcg cggggaaagc cgccttcgcg
10081 cgcggccca gcgccccgcg ggcgcgggaa agggctttt cgacgcgcgc ggcttaagca
10141 gcgagcgggc cccggctgtcg ggcgcgggg tagtgcgttgcgaaataaaac aagccgagtt
10201 gcgcgctgtc gtgttagtat gaaaataaaac gttgttaat taaacacacc aagccgagtt
10261 gcgttgtctt tggatgagc gggcgatcaa aaaccgcggg cgcgcgcgctc gcccgcgt
10321 cggccgggtgc tgcggcgca accatggacc cgtacgacgc cattgaagcg tttagatgact
10381 ccctgctcgg gtcgcgcgtc gcggcggggc cgcttatga cggcccggtcc cccgcgcgg
10441 tcgcgtgcc gcccccgccg cccgcgtcccc tggccgcgtt gctggagcga atgcaggccg
10501 agctgggctt cccgcacgc cccgcgtgc tgccggccat ggacgggtgg aacgaggact
10561 tatttcgtg tctgcgcacc aacgcagacc tgcgtgcaga cggccgcgtc ctctcgccag
10621 acgcagacgc ggtagtggc gccatgtacc tagcgggtcc tggggacgcg gaggcgttgg
10681 acttgaacgc gcacgcgaac cagccgcgttc ccgcaccgcg ggcctcggag gaggcctcc
10741 cggagtatgt ggccggcgta caggcgcatt ttctggcaga gctgcgcgcg cgggaagagc
10801 ggtacgcggg cctgttttgc ggctactgcg cgcgcgtct gcagcacctg cgcgcacgg
10861 cggcgcgtgg cggaggcgcg gcgggcgcgg ggcgcaggc agaccgcgt cggcagctgg
10921 tggccggcgcg gtactaccgc gaggcggagcc ggctggcgcg gctggcctt ggcataatgt
10981 acgtggcgcac ggcgcgcgaa gtccttggc gcctgcactc ccagcagagc caggcgcagg
11041 gcgtgttcgt ttcgcgtgtac tatgtttggc cgcagcggcg gcgttcacc tgcctgttcc
11101 accccgtgtc gttcaaccac ggcgtgtgg cgctggagga cgccttctt gacgcggcgg
11161 agctgcggcg gctaactac cggcgtgtgg agctgggtc ggcgtgtgc cgcgcggggc
11221 tggcggaggt tgaaatgggg ccttgggtgg aggagccgcg gtttcggga agcttgcgc
11281 gggcgtggg cttccgtaaat taccaaatgc ggcgaagat gggcgcgc gccgaggccg
11341 cggggcggtg ggcgcggag cggagactc cgtacgcgcg gccgcgcgc gcatcaact
11401 acgggacgac tccagagggc atgttgcggc cccgcgtcc ggcgaagtgc ctccgtgc
11461 accccgcgccc agcggctacc gtgcgcgtgg cggcccccgcg cacacatctg gtcaggcgc
11521 ctcagccaa gggcgcgcg cccgcgtgg ttgcgcctt ggctggctt gcaaagcccg
11581 gtccggccccc gctcgccgcg gccccggccc aagcccggtt cgcagcggcc ttggccttag
11641 ccgagcccgcc ggcagccctg gccccggccc cgcttgcggc gccccagcc gagccgcgg
11701 cggccgtcgc cggcccaagc cggccaaacc cattcgcggc cacgtatgac ggcgtgtgg
11761 gggaccgcct caaccagctg ctggacttct aagggcggc gggcagtggc gctttcgacc
11821 cggcgcgtgg cgttgcgag gcctccctct ggcgtaaaggc ctttgcgc gccctgcgg
11881 cggcgcgagc gtataaaagc cacttgggtc tacacggat tttagtttcg cggccgcgg
11941 tttcttaggcg cccttagacg ccatggacgc cgcttaggat gggcggctg agcgcgcgg
12001 cggccgtctcc ggaacgtacc gcacgcaccc gttccagcgc ccctctgc ggcggagcgc
12061 tggacgcctt cgcgcgtgcg gacgcggagg cccgcggagcg ccgcgggtcc ggcgcgcgc
12121 gccgtacttc cagcggcccc cggacgagga caccagttag gacgagaacg tgtatgatta
12181 catgcacggc gatagcagcg acagcgcga cgactacgat agcgattatt ttactgctaa
12241 cccggcccccc aatcacggcg cccgcgtacgat tatggacaca gacgcaccac ccgagcgcgc
12301 cccggaagggg ggtgccccgc aagactactt gacggccac ctcgcgcaca tcgagggtct
12361 gccccggatca gcccggccacc ggagcgtct ggcgcacgc gcccggaccg tgtatgcga
12421 gcagttttcc cccgcgcgtt tgagtgcggg ctccaaaggc cccgcacagc gcgcgcggcg
12481 gagctccgcg ggctccgcg gtgcggcg gggccggccaa gaaccggggc cagacgacga
12541 aggccgacgc gccgcacgc tgcgcgagga cccgcgtctc aacatggagg cggccgtctc
12601 agagccgcac gacgcgtgt cggaaaggccc gctgtttagc tacccctgc cccagcctca
12661 ggctgcgggg gagaggagcg tggggagga gggccgggtg cggcccagcg ctttcttcgc
12721 ggttagaggtg cccgcgtccca ggatttggaa ggcgcggccaa gatcagcgcg tggcgcgcga
12781 gcagatgtcg ctggacgcgc tggccgcac gcatgggtc ctaataacca ctttgcgc gtcggagac
12841 cggccgcgcgt tggagatgg cccgtacgc gtcgtggc gccccctgagg gcacccggcc
12901 ggtggaccccg gaattctca tcggcggcat gtcgtttagc gtcgtttagc ggcgttgggg
12961 cccgcgtatgc tggccggcgcg cgtatgac ggcgcgttggc ctcgcgttcc ggcgcgttgg
13021 gggggccctg tgccgagcag tagacggcgc agcatggcgc ccactgaggc gctgtcttt
13081 ttggcgtgac gcgctgcgc gcgagtcgc aactgcatt ttttgcgc gccggggccgc
13141 cggccgcgcgc cccgcgcgc gtcgtggc ggcgttgggg ctgcgtggc ccaacgcagtt
13201 cacgccaccgc gacgcgtccc cccacgcac gtcgttgc ggcgttgc ggcgttgc
13261 ttactggcac gagctgcgcg tgcgtgcac tgccgtgc gccctgtgc cgcgcgtacgc
13321 gggccgcggg ctgcgtcgg ccgcgcgtgt cctgcgtggc ctcgcgttcc gacggcact cagaggcgc

13381 cggctacacg gcaaattgagc gctacgcgtc ctcggcgtac ctgacgctgt tttagcgcct
13441 cgcggagcgg ggcctgcgt ggctgtatct agcggggcgc caccctgcg ggcgcaccc
13501 cacagcggcg gccttccgcg aagtgcgcgc caagatccc tacgagcggc tgccgttagg
13561 cagcgcacg ctgcacgcac ccgaagtggc gacgggtggac tcggccaccc tccaagaggc
13621 cctggctttt agcgcgcgtt cacaatgtt aacatgcgtt cggggaggcc tacgtagcgg tgcgaaccgc
13681 gacgacgctg ctgatggccg agtacgcgtt ccacgcgtt cggcgggacg tgcggcagat
13741 gacagcggcc ttccctggcg tggggctgtat cgcgcacg cgtatggca gcctgaacct
13801 gctgtgaac tgcgttagccg ggcgcagcgtt gtacggggc cggcgtgtga cggtgccgca
13861 gggcacgctc ggcgcgttaca gcctgctagc ggacgcggca ctgcccgtt gtcgcccgt
13921 gttctctgggt gaggcccgagg aggcccgcga cggcgttacg cgcgagctgc ggctgcggcc
13981 cgtggcggac ccggccctgg ccggcaagcgtt cgggttacg gagctgttacc tctcgttgg
14041 cagcatagag ggcgtggcgtt gcccgcggcc gcttaggttcg cggccgggtgc ttggggcgt
14101 cgtggacatc gcgaggcgc tgggggacca cccgcaccc tcacccggc atgggggggg
14161 cccgcgcctg ggcggccgcgtt aggccgcacgg cccgcgttac gccggcgttgc gtcgcggcc
14221 atcagccacc acggccgcgc gcccgcggcc ccctcgtatg cctatatacg catcagcgtt
14281 gaatgccaag cccacttcc cccgcggcgc gaaatggcgtt gggccggccgc ctctcgggg
14341 ctcatcgac ggcggggcaga gaagggggtgc ctgctggcga cgtcgcaga tgccacggcc
14401 gcgccgtgg tggccgttca ggaggcgacc gaggcttgcg gcccggctcc gctgtttggc
14461 gccgagcgcg cggccgcgtt gctcggcgtt cgttcccgaa ggcgttgggg
14521 ctgtcggtact cggcgaaaaga cccgcacgac gatgttccggc tgagttatgaa cccgcggcc
14581 ggcgggggtgc tggcggggcgc gcgctcttcc aaggaccccg tctggcgcgc ggtcatcgcc
14641 tcgtactggaa agtacctgtt ggcctcgac ggcgttgcg ggcgttgcg tgaacatcgaa cggcggcc
14701 ggcggcgcgg cgatggagca ggcgcagctg acgaacgttac tgcttttgc gcccacatac
14761 ggcggccggg cctcgcttcc gccgttcaag cacaaggcagg acaacgcggc gtacaaaacc
14821 gcagcggccgg agtgcgcgg cccctgcgc gcggtggaaa agtataatgtt ttacatgcgg
14881 cccggcgcacc ccatggtca aagcccgac acggaagccc gcctgcagga aattttggcg
14941 tacggcgcga cggcctaccg ctggctgttgc tggttcatgg acgcgtcga tggcacgggt
15001 ctgcgcaagc ttggcaagcgtt cccctcgcc gcggtggggc cgcgcagcc ggcggcc
15061 ggcgagctgt gcgagcgcgc tctgaccggc gggccggggc tcgcctgcgg cagcggggcc
15121 ggcgttcatgc tgacggccctt gacggcggcgc gtcgttgcct tgctactgcg cgtcggggcc
15181 gcttggacgg aatcgctatg gaagagcaat acgcaggccg tgaacgggagc catcgcc
15241 gcggtcgacg tggcgtcgcc cgtacaccac caccgttcaactt catggcctt
15301 gtggggtaacg cctgtgttcc ggcgcggggc gtgcgcacc cgtacatgtat cgcggccatc
15361 cgcgcgcgtt gccgttgcgc tcactttacg gggcactgttga tgccgaccat gactttcc
15421 agtggggcgg ccctggagcg cggcacggcgtt agtgggttttta agtggcgct gctgaaaagg
15481 gtggggcggc acggcgcgcga gacgcgttac tactccaaaca tcgtggagtc gatgcggctc
15541 ggcggggagcc ggggggtgtt ggcgcgggtt cgcgcgcggc cgtcgccggc cggccgc
15601 tgcccgcaga gtctggcgcgc gcccgggttgc cccagcgttgc cggccgcggc cggccccc
15661 cccggctcggt gtcggggcgc gggctcggttgc tctgacttgc actccggacc gatctcgcc
15721 tttggccccc cctgtcggttgc ctatgcctcg atgcgaacc tgagggcgc cttatggc
15781 gcgccggggcc cgtttcgcc ggcggcaagg ccccgccgttgc ggcgcggc gggaggcggc ggttac
15841 aacgaaggcg aggggcaatt cgcgccttgc cccatgcgttgc cccatgcgttgc cccatgcgttgc
15901 gacagcgcgcg acgagctcg tattgcacggc cccatgcgttgc cccatgcgttgc cccatgcgttgc
15961 cgcggcgcgcg acgagctcg catcgacgggtt cccatgcgttgc cccatgcgttgc cccatgcgttgc
16021 cgcggcgcgcg acgagctcg catcgacggc cccatgcgttgc cccatgcgttgc cccatgcgttgc
16081 cgcggcgcctt ctgtggcgtt ccttcgttac gctgatttgc gcgcgttcc gagtac
16141 gacgaggacg aggggcaagga cgaggacgag aacaaggccg gggcaccgc cccgttggcc
16201 gcgaccccg aatcggaact ggcccgcgc atgcgggtt gcagctcccg cgtccggcc
16261 tcggcccccgg ccccgccccc ggccccgttgc accgagcgc cggtaatcc aacccggct
16321 tactcgctt cgcgcctcg gcttgcgc gtcgttgc gtcgttgc ggcacggccct
16381 gcggtcgccg gtggcgttca caccgcgcgc cacaaccgcg acgtgtggca ggcgttttcc
16441 cgcgtctcg agggccggca cgactacgaa aactacacg agggccgcgg cgcagacgc
16501 ggacacctt cttgcgttcc cgcgcgcggc cctgagggttgg agagggttac gtcgttgc
16561 aggcccccac cgcggacgtt gtaacacaca cacaataaaa agttgtttt agtttattat
16621 gaaattgtac atgcgtgttcc ttgggggggg ggcgcggcgg ctggccgttcc ggggcccc
16681 gcctacaggc gcccggggc cttgcgcgc acgcacagg cgcaccacag caggagcccc
16741 acggcgcgcg gaccgcggc gacggccacg acgctgacga ggacggggct tccgattagg
16801 ccggcggagg cgtgtacgtt ggcggcgcgc gagaactcgg gcacgggtgc cgggtagcca
16861 gtggcggtgc aggtgtatgc gacggggccgc tcgggttgcgaaagcggc caccgcgc
16921 aggttacca gcccggggcg ctcggcgcgtt acgcgggttgc gtcgttgc gacggggcg
16981 atgcgttgcgc gcaccgttca ggcggggatc acgcgccttcc cggggacgc ggcgcctcg
17041 cacacggcc cgcgccttcc gaaatgcgtt cgcagcttgc gggccgggttgc aacggccgg
17101 gtgcgcaggc cgtaaaaggcgc ggcgttccatgc ttacgttgc ggcgttccatgc
17161 cgcagggttgg cgggggtggc ggttggcgtt ggcgttccatgc ggcgttccatgc
17221 gaaaagagcc cggaggctcg gaccgttacgg acgtcgccgc cgtgttgc gtcgttgc
17281 tagccgttgc ggaaccaggc cggcgttgc gacggccgttgc gacggccgttgc
17341 cacacggccg cgtacggccgc gccttcttgc gtcgttgc gtcgttgc
17401 gcgcggcgtc tcgtgtacgtt caccgttgc cgcgttgc
17461 caagtgtaca cgcgcgttgc ggcggccgtt cggaggccgc
17521 gggtcggcgg gcgaaaggaa aatatagtt cgcgcgttgc
17581 gagccgttctt gggctacggaa cggcgttgc
17641 gcctcgctgt cgcgcgttgc
17701 cgcgcaccgc cgtggcgtt
17761 gaggccggca cggcgttgc
17821 ctcggccgcg gggggcgagg
17881 ccagcgccgc cgggtcgcccc

17941 ggcgggtcgt gctcggacac ggacggcggc tccggcgtcc ccacggcgt agtagaccg
18001 ggcgtgctgt cctctggcg agcgtcgaaa ctgttggcg tggggggcgt tgcgcgggt
18061 gtcccaagcg agtttccgt ctcgggtggg gacggggagg gcccggcgaa aatagctcg
18121 tccgcctcct cggcgagccc cccggggca gacaggagcg cccaggcgaa aatagctcg
18181 atcagccacg ctcgccccag cggcccatg gcggacgcgc ggcgagggtct cgggctggcg
18241 gtctctcgcc ggtcggtcgc gcgggtggat ccaagatggc cgcgaccgcg gcgcggctac
18301 atttttaagg cgctccgtt tgtctttcg tggtcggga tttagcacac gcgcggctgc
18361 aggccgcgtta cgctcgccgg cagccgttca ttcgtcgccg cagacccagc aggccccac
18421 gcagaagcac agcgcggcgt gcagggcctt ggccacgtgc gcccacgtgc gccgtcggt
18481 gccgcgccc cagcggccga cccacacgc ggccaccaggc gtgcccgcgg ctggcaggc
18541 cagcgtcgcc ggcgcgcgc cgtccgcgc gcaagcgcc agcgtcgcc ccagagcgca
18601 gatgcccaacg tgccattaa gcgcgcgtc cgcggcgtcg gcgcgcgcgt agcgcaggca
18661 gaggtgctcg gcgagcgcga cccgtgccc gcccgcgacg ctgagcagaa ccgcgcgcg
18721 cgtgcgcagg cggccaccgc ctcgagccc aagcgcgcgg cccggggccc agagcgcgc
18781 cgccgcggct aaggcgccgg cgcacagcgc gagtcgcgcg gcccggcgc gcgcagcgc
18841 gcgcatgggc acggcgctct cgcgcgcgc gcaagggtca gcccggcgcg ctgcctcgcc
18901 gagccgcgc acagtcgcga gcgcgcgtaa cggccagatc tttagtggc aggtgtttc
18961 cagcgcgc cggcggtccg tggcgccac gaccaggcgc gcccggcgc ccgcggcgc
19021 cagcgcctcg ggccgcgcgc cccagcgcgg gggcaaaagg ccgagaagca gcccgcagg
19081 catgtcagt agcgcgtgc gaaagtgcgc cccgtgccc gaggctgcgc tcacaaatgt
19141 cgcgcagtgc accggcacac cgcagacgc gtaggcagcg gccgcgcgg ttgttacccc
19201 ggcgcgcacg gcggggggcg ggtctgtggc ccagacggcg agtgcgcgt cgacagccag
19261 cgcctgcgcg agccggccaa gcggcgcgag cccgcggcgc tgtaacgcg agcgcgcgg ccgggtctt
19321 ccaacaaacg agcgcggccg cggccgtggc catcaagccg gtgtgtgtc ccatggccac
19381 cgcgcgcgc acgggtggca gggccgcgc gccgcagccg gctctgcgc cgcgcagcc
19441 cagcgcgc cttggcgccaa gcgcacacgg acatggatgg tcccggttcc ccaaataacg caacgtggcc
19501 gtcacccgc acggacgcga atatggatgg ttcgcttaa ggagttcgc ccccctcccc
19561 caggatcgcc ttatcgcc ctattttgtt ggcgcggcgc ggtggcggtg gcccggcgcg agaaaaaagaa
19621 gccccgatcc gggcccgcgc tcggggccgg ggcgcggcgc tcggcgcgcg gccgcttgc
19681 gccccggccg cggaaactg cgaccgggtg cgcgcgtcg gttgaatgc cggctccgc
19741 cccgcgacga gttggccgg acgcggccggg ccgcttagcg gaaaggcgccg gtgcgggctc
19801 ggcgcagtca tcagcatcg cggcgaggc ggtggcggtg gcccggcgcg agaaaaaagaa
19861 cacagtcaac ccctccgcgc ccgtgtggc gacgcgcgc atggcggcgc tggcggcgc
19921 gaggtagaag cgcacgaggg cgtgcgcgc gacgcgcgc accttttgcg cagccgcgc
19981 gaatcccgag ggggacttca actccagcgc aaagtcaaggc gccccgcac agcagcgcac
20041 ttcaatagg gcggccctgc gcgcgcgcg ctggccgcgca ctcgcgtcc gaaaaaatgc gtcgcgtcc
20101 tgcgtctggg gcgagcgcgc gctggagctc tgccggccct atggcgcgc
20161 ggcgaacgaa gtcggcccg atgcggactc ggcgcgtcg ggcgcgtcg gccggatgc
20221 gaataccacc gcctcggtt gattttggc aactgcgtc agctttgaga gtcgcggccg
20281 cgagacgcgc acggcgaggt cggccgcgcg cgtcgaaagc atgattgagt actcgcttag
20341 ctcgtcttg accaggctgg ctcgcaatag ggcatcgcc tccgaaagt aggtaaactt
20401 cgttagcact ctcgcgggtg gtcaccggc gattagaaag gccacgttct gcaactgtcc
20461 tgtcttgcg ggcgcggaaagg cgttcagcgc gccgcggcgg ctgtcgacgt tggcgaggaa
20521 gacgctcgc gcgtcgtcgc gggggggggc ccacttggaa gacgtgaact ttcgcgggg
20581 gacgcccacg tacacttgc cgtcgtagag gccgtgtgtt accagcatgc ctcgcggct
20641 aaagacaaa aaggcgttt cgcgcggcgc gccaagggg ctcagcaggc cggagacgtc
20701 cgcgcgtgg cggccgatata gcggggcgtc cgcgatggg ttgcgttgc cgcgtcgga
20761 cagaccggcg gtggggcgcc ctcgccttc gtcggcgcgc agatgcgagg ggggctgcag
20821 catcgccgc ggtgttccg cggcgcttc gtcgcctct tacgcgcgcg gtcgcaaagc
20881 gagtcgcgc tgccgcgcgc ctcttatac tggcgacgc ccccccgcac ggcääaacac
20941 acactcgccgc gcctcagcgt atcaaacggc gacacgttta agtttgcacg cctataagcg
21001 ggcgcgcgc ctaggcctcc caatcgccac cgcgcgcgc tgcgcggcg accctgcgc
21061 gagagagatg gggctttca agctactgcg ttacgcgtac gcaatcgcc tggtaaagca
21121 cgacccatc accacgcgc cggcggtat gaccccgatc gcggtcgacc tggaaacgt
21181 gatgtatacg ctcttggac gcttctgcgg cgcgcgc cgcgcgttag gagacgcgc
21241 cgcgaccgcg cgctgttcc ttcgcgtctc gcgatgtct ctcacgcgt cctactaccc
21301 gatcttgcg gcgaccgcg gatccacgcg ggaccggcgc gccacgcggg gtccaaaggc
21361 cattgtggcg cagacgtgc gcggcggtcg cggctcgccg cgcctcgccg ggctcgtag
21421 cgacgattat acctcgaggc acgagggtct gggcggtac gatccccc tcccgacgc
21481 ggacgcgcgc gccgcgcgc acgaggaggc aacggcgaag gatatttgcg ggcgcgcctc
21541 ggcggggccg ggcggggccaa acgcgcggc gctgcacat cgcgtgtgcg tgagcctcat
21601 cgcgttttgc ggctacgcgt acgtcgacgc cgtcgatgc gaggcagacg acgtctgcgc
21661 aaaccttttc cacacaaaca cctggcgca catctacacg acggacacgg acatgatcct
21721 tatggctgt gacctgatgg tggacgcggc gccgttgc ccccgacgc tacgtcgcc
21781 cgacgtctcg gcgtcgctgg ggctcacgt cggccagatc ctcgcacgt tcgtcgctg
21841 ccacaccgc ttgcaccaggc cgcacatgc ggcgtcggt cagcagggtgg tgcggggct
21901 gggcgcgct gccgaggccc agccgcgc acgtcgatgc taccgagacg ggtctggc cgcgcgc
21961 gcccggatcc gagctcggtc gtccgggcgc tggcgccgg cgcgggttgc cgcgcgc
22021 cgacgaccccg ctggaaacta cgcgcgcgc gaccgtggaa ggcacacgc tgccatgaa
22081 gtatacatct cggtaaccctc cgttgcgcgc gacgtcgcc gacgcgtgc ggctcgcc
22141 ggcgtcccg acgcgcggc gcgtcgatgg gacgttgc gcaatattt gtaaagcagc tggtgacac
22201 gatcgccgc cgaatcgccg ggcgtggcc cgtcgatgg cgcgtgcacca tcgcacagga
22261 cgcggccgcac ctcggctcg tgcacgcac catcgtagc gccgtaggca ggcgcgc
22321 ggccgacacg ctgtatgggc tcttctggaa gacatcccc actccacccc catttgc
22381 ggtgtggca gactactggg acgaggcccc cgcggggccg ggtgcgcac ggacaacccg
22441 ccaataaaaa cgcgcgcata cgcgagactg gtttcgttgc acatggaaaca ttttttattc

22501 gcggcgtggg ggtgagaagg aggaggaaag gcggggcgct ctggcaggc agcgggggtg
22561 ccctacaggt cggtgattac ggtgcctgt tagttggtgc tgcggcgtc aaagaagttc
22621 gtgtgtttct cggcagtcat cagggccaaa gaaaaatcg gtcggcgtc aaagaagttc
22681 aacagaggag gcagctggat agcagcgagc aggcggcccg cgctgtactc gacgtacgc
22741 gaaatagcct ccacgtcaag tatatgactg cccgcggcg cgaaccaaa taaactcgcg
22801 ctcaatttcc acgcttcgcg gaacagctcg tagatgcggg cccgcggcg ccgctcccg
22861 ccgaggttagt tgcgaagat gcagcacgac gcggccgtgt gcacggcttc gtcgcggctg
22921 atgaggtcgt tggttgca cgtcacgacg aaaaggtgt ggtgcgcag gtaggaatc
22981 gccgaaacg aggaggagaa aaaaatgccc tcgattagaa tcatgagcac gtactttcg
23041 gccaccgact ctgcccggc cacgcgcgc tcgagccagt ccacttgcg ccggaccgcc
23101 gggtcgcccga ggggcctc tacgtagccc gcgcgcgcca ccgcgtcg tctaaagagc
23161 agcagctgta tggcgtgtc caccgcgag tgcaccactt cgatggactc ctgctcgata
23221 tagtaatgca ggtatgtctt ttgggtgaac agctcgaca ggtcccccag gttgacgttc
23281 acgaggtcat cggcggccga gaggAACGCG aacagaagc gtaaaaactc cagctcgcg
23341 ccgtgagcc ggcgcacgtc cttggctcg tccgctaggg gaaactcggt ctccagccag
23401 cgggttgcga cgctgagcgac ccgcgaatgt aactggcttccgttccgttccgttccgtt
23461 tatttgtatt tacgcgtgag ggtgcggcgcg tccgcgcct cggccatcgc gtcggcgcg
23521 cgtcgtaca ggtggcaccc agagcacacg aggtcgccgc cctgttccgttccgttccgtt
23581 gtggcttgc ggtatgtca gttagtagagc cccgttccgttccgttccgttccgttccgtt
23641 actaggaggt tcatgatctg ggaggcggcgc acctttccgttccgttccgttccgttccgtt
23701 agcgacattg actggctctg gtccacgaac ggggcgcgttccgttccgttccgttccgtt
23761 cgcttcttgcg cgtactcgaa ggcgtcttgc aacttggcca gggatgcgc gggcgcgagg
23821 tcgcccagcg cggcggccac cgaccactgc tcgcggtcca ggcgttccgttccgttccgtt
23881 cggctggcct cgcgcgtaaa gtgtttcgcg agcgcgcgc tcaaggcgc gttcggcgc
23941 agcagctcgcc cgctcatcgat gaccttgcgttccgttccgttccgttccgttccgttccgtt
24001 tcgctgcctt ccgtcacctg cgacgaggac acggtcggca taaggcgcac aaactcgcg
24061 ttgtacagcc cgtgcccgcg gaccttctcg cgcagccggg cccaggcccg cggcagcgc
24121 aggaccacgc cctcgtagcc gtgcacacggc atgagccgc ggcgcgactt gtcgcgcga
24181 aagtctcga acggcgcgcg gccgtactcg cacagcgtgg cgctgggtgc catgacggcc
24241 aggagcaggc gtcggcgat ctccacgttc agccgcgcg cggcggcgcg gacatgtcc
24301 atgcccagct ccaagaggag cgtgtcaggc ccctggaaagc cgcgcgcgcg ggcgcgc
24361 cgcgccacgc cgcgcgcgcg ctttcggta ggtactgtc cgcctagcat catagcgttgc
24421 aaaaaatgg cggccgtggc ggcgcgcgttccgttccgttccgttccgttccgttccgtt
24481 cgccttcac cctcgccgcac gcagcgcgcg aggttgcgc tggccaagtt gcacacgc
24541 tggcgtcggt ggctcgccgc ctgcacgatt tccgtcaga gttggagcc cgtagcgcg
24601 tccccggccg tgcgtatgtc gtaatggcggttacacgcgttccgttccgttccgttccgtt
24661 ctcccccgtca tgacgtatgtc tcggacgtatg aggaaagcta ggtctgcac gggcacggc
24721 tcgacgccta gcccctcgcc ctccagtcgc tcgtactcggttccgttccgttccgttccgtt
24781 agccggctga ggtgcgcgcg ggcgtcgccg aagagcgtcc acacaacgc ctcgcggc
24841 tcgaggtggg cggatgtcg gtcggacggc aggtccggca cccagaggca gctgaacagg
24901 ttgtcgcgcg gctgcgactc gtcccgggcg acgaggcgc gcatgtttag cacggccgc
24961 acgtcgca gccagggtc gaggatcacg cagatggcc tcggcgcgc gtcgtcgct
25021 ttgtatggca tggccatcgatgcgttccgttccgttccgttccgttccgttccgttccgtt
25081 tcgcgcgaga ccgcgggtc gaaatctgg aaggagatttccgttccgttccgttccgtt
25141 aagattcgcg cgacccgtcgat ggtgatcgcc tccacggccttccgttccgttccgtt
25201 ggattgagca ggttagcagct ggcagcgcg cccgcgcgc ggcggcaaa gagcatgatc
25261 ggctcgccgg ggacaacagag ctggccgtac agcgcgggtca ggtaggcgtt gacaccgc
25321 caccacgtgg cgcggccgc gacggggcg cgcggccgc cggccatcccg catcgcc
25381 gtggcggccgg tcgcccggat ccgcacgaaatggccatccgttccgttccgttccgtt
25441 tcgagcttgg ccaggtacat ctcttcgtac ttcaatggccatccgttccgttccgtt
25501 agggtggcgt actcggtaaatgtcgttccgttccgttccgttccgttccgttccgtt
25561 ggcgcgcaccg gctccgcgc ctggacacgc agcgcgatgttccgttccgttccgtt
25621 tccagaggca cgctccgcgc acgcacgcgc aagtgcacga gttggccgc tttacgtac
25681 acgcgttcgttccgttccgttccgttccgttccgttccgttccgttccgttccgttccgtt
25741 gccactcgccg cccgagaagg acgagaagcg ggcggccgc ggcaccgc
25801 cccagctcgcc cccattccgc gtgtcgccgc tcgagctgtc ccgcgcgc ggcggcc
25861 gctgtctgc tgaacgcgtc gctcgccatc ttgtcgccccc cccgcgcgc
25921 ctgcgcaccc gctggctttt tgcgtttcgc cccgcgcgc ggcggccgc
25981 atcgaccccg ccccgacgc tggaaacaa tggccgcgc ggcggccgc
26041 aaaaacccgag cgtatggcg cagcaaaagg tggccgcgc ggcggccgc
26101 ctggcccccgg cagcagagat attaaacgcg gtttggaggc ggcggccgc
26161 tgatttatgg catcgacac aacgggttgcg gggaaacaca tttatattaa aacgacagcg
26221 ccccttgcgt tcagtaaaatgtcgttccgttccgttccgttccgttccgttccgtt
26281 tcttgacgac gggcacgtcg caagactgttccgttccgttccgttccgttccgtt
26341 agtcgtgggg cagcgtcccc aggcgcgcga agcgcgcgc
26401 gcccggccgc agcgtccggc gcccagcgcg gcaaggaaacgc
26461 gccgcgagac ggggcagcgg taggcgcgc ggcggccgc
26521 cgtccgcggc cccggccact tctgcagcgatcgttccgttccgttccgttccgtt
26581 cgcgcgtcg gtcagcaat tagctcgttccgttccgttccgttccgttccgtt
26641 tgacggccac gtggcgcga aagccctgttccgttccgttccgttccgttccgtt
26701 ggtacacaaa ttgtacggcgc ggggcgttccgttccgttccgttccgttccgtt
26761 cgcaggcggg cacgtggccgttccgttccgttccgttccgttccgttccgtt
26821 cctgcgcgccc gcaagacgcg gccgtacgc gtcgttccgttccgttccgtt
26881 gcagtcgcgc caggcaccgg agtgcgttccgttccgttccgttccgtt
26941 gcaggcaggc gtagaaggcg tctagccgcg atgcgttccgttccgttccgtt
27001 tgagggtcgcc ggcgcgcgc gtcgttccgttccgttccgttccgttccgtt

| | | | | | | |
|-------|-------------|------------|-------------|-------------|-------------|-------------|
| 27061 | ctgcccagaaa | ggaaaaggat | acaagagagg | cccgcagccc | cccgggcggc | accgcgccca |
| 27121 | cgttggaggc | gtcgccgagg | tcgcgccaag | ccttttcgac | gtcgcaaaac | tgccgtccgg |
| 27181 | ggggcgccgc | cgcggcgccc | agcccaataa | tgtcgccggg | gtgcttcagc | gttagagacgg |
| 27241 | gcgcgcccgg | gctcgagc | tgcgggtcgc | aaaagtccgt | cagggtaacc | tgccgcgaga |
| 27301 | gccggatgtg | aggctgccc | ccgggcgaga | ggacggcggt | gccggcgccc | gtgtccacgg |
| 27361 | caatctccg | gggcgtgac | atttgaatcc | ccgacatgtt | ctggatggtt | accgttgcgt |
| 27421 | cagacacgtg | cagcatccc | ccggcccaag | gtttagtgc | ccggggtgcc | cgcggcgag |
| 27481 | cgcgcacaac | cgcaggcgcc | gtcaactgact | gcacgcggc | ttcggcgca | gaggcctcg |
| 27541 | ccgcgcgcgc | ggcggcgccg | ggacgcggcc | agaacgcgg | cgcggcggt | gggagccgca |
| 27601 | tccgcaagtg | gttggccatt | tgaatgtaac | tcgagctccc | gttaggcgcg | gccatcggt |
| 27661 | ctcgccgct | cggcactcgc | gctcggtcg | gtgttatag | gttggcggt | tcgagctgcc |
| 27721 | tttatacgcc | cggcgcacgc | ggcgggggca | agggcgtcag | cggcggaaagc | cgcggcgccg |
| 27781 | gttgcggcgg | ggggctgtgc | ggggcgta | ataaaactgcg | cggcggtgc | gggctctggc |
| 27841 | cattcgcc | ccggcgac | cggcgctgac | atgagcgag | accccggtcg | ggccctgtgg |
| 27901 | gccgcgtcg | agcgggttgg | tggcgaggtc | gccggcccg | ccgcgttgc | ggagggcagg |
| 27961 | gcggccgtct | cggagtttct | cctcgcggtcc | gggcccact | cgttagactt | cgtggcgccg |
| 28021 | cgcgtggccg | cgcgtcagc | cgcggcggtc | cgcgttacg | agcgcgtca | cacgcacagac |
| 28081 | gcggcgtgc | tggcgaaaaa | cctgcccgg | ctgggtgt | ggcgcgttgc | cggggccgcg |
| 28141 | cgcgacaccg | cgcgtttcat | ggccggcggt | cgggacttg | ccaacagcat | gatcggcgag |
| 28201 | gcgcgttgg | gttacccggc | ggccgcgcgc | ctgcgcgca | cggcggcggt | cggcccggtg |
| 28261 | aacatgcagc | gcgtgggtgt | ggagtgggcc | tcgctttt | tggagatcta | cgcacgcag |
| 28321 | gacgcggcgt | gcgtgggtgt | gttagggccc | gaccctcg | gccgctcgcc | ggcgggcagc |
| 28381 | gcggccgtca | tccgcccgt | gctcagagc | cgcttcg | tgtgtatga | catgccttt |
| 28441 | tttcaaggcgg | ggcttagcgc | cctggcgac | gccgcaact | gaaaagtgc | tatggccgccc |
| 28501 | gtggcacgac | gcgcgcgga | cgcgcggcg | ccgcccgt | cgcgcgcgt | ttttggcg |
| 28561 | gcgcgttgcg | acgagactt | tcccgagcc | gacgacagg | acacggcgcc | ggggctggc |
| 28621 | gaggcggttgc | cggaaattgc | tgacttgggt | ccgcccagg | cgttagtgc | cgcgggtgag |
| 28681 | gctaacgcgtt | ttgcgcgtc | gtcgcacgc | gtgcgcgtat | cggcggcg | ggcctaccgg |
| 28741 | gaccctttgc | tgcgcggc | ggccgcgggc | agcgtcgc | cgcgcgtgc | tgccgacgc |
| 28801 | ggccttctcg | ccgacgacac | gttgcgcgc | cgggaccc | tcgcgcgttca | cgcaggcg |
| 28861 | gtgggtgcggc | tgctagaacg | cgcggccgc | cgcgcacgc | cggcggcg | ggggcgagtt |
| 28921 | gcagagcacg | cggccgcgt | ttgggacgccc | gtgcaggc | gcgcacgc | agaccaagcc |
| 28981 | gtggagacgc | tggccgcggc | gggtttacg | ccgggaacgt | gcgcacgt | agagcgcgc |
| 29041 | gtgctggcgc | agctatcg | cccagagcc | cgcgcggc | cagacgt | gcaggcg |
| 29101 | ggctgcgtgg | cggtggcg | cggcgctg | tttaaaactct | ttgacgcgt | cgggccca |
| 29161 | gcggactacc | tcgcgcacta | cacggccact | atcgcaacc | tgaccccgta | ctacgcggac |
| 29221 | gtgtgcgcgt | tgctgggt | gccgcacgc | gggctggagc | agacgatcc | ccactgc |
| 29281 | gccccggcgc | cgcgcacg | ctacgtggc | gcgattcgc | cgcgcgtgg | ggcagaggc |
| 29341 | gcggccgcgg | acaagcgac | cgcgcgc | agtgcgcgg | cgcgcgttga | aaacagcggc |
| 29401 | gaccgcgcgg | cggccggcgc | tgcgcgcgc | gaggccctc | taacctgg | tgacgcgc |
| 29461 | gccaagcgc | gtggggcg | ggccgcgc | gcccggaaag | cgcgcgcgc | ggccgaggcg |
| 29521 | gcacgcgtc | cggccgcgg | cggcgcttgc | gccgcagac | tcgcgcgc | ggcgcggcg |
| 29581 | ctcgagttcc | cccgcacg | cgcgcgttgc | gctggcg | tgcgagac | ggccttgc |
| 29641 | ccccacttcg | ccgcccgcgt | gctgtcgac | gtgctgttgc | ctgcggac | gctgccc |
| 29701 | agcgcacac | gcgtggcg | gtgtatggc | ctgatcg | gggcgcg | ctgcggcg |
| 29761 | ggagcggtgg | ccaaatcg | cggttaccgg | acaaaactgt | cggccctgg | ggccgggctc |
| 29821 | tggccgtttgc | tggacgc | cgcgcgc | cccacgac | cgcaggc | caacgcggag |
| 29881 | gctgtgcgtgg | gcgagctgc | cacggtagct | acgaccgg | cggagtc | gccgcggaa |
| 29941 | gtgcgcgcgc | ctgtgcgc | gcgcgcgc | gtggggcg | gtgttttctt | agcgcacat |
| 30001 | tacctgcacg | ccgccttc | gcgcgtgc | ggctatgtc | ccgagacgg | agcgcgtggc |
| 30061 | gcgttatgg | ccgcggcg | gggcgcgtt | gccggcg | tggcgcgg | gggagtgct |
| 30121 | ttcgaactgc | actttgc | gttgcgggg | cagcagat | tggcgtata | cgcgacgc |
| 30181 | ggcgcgcgt | gcgccttgg | tgcgtggc | tcggcg | tggcgcac | gtgcgcgc |
| 30241 | gcgcgcgc | aagccgc | cgcgcgggc | gagggtgc | tgtgcgttgc | ggcgttgc |
| 30301 | cgccgcgcgg | cgcagac | acaagcg | caggagtgt | aagctgc | cgcggcccc |
| 30361 | cccggcgcgg | ggctggac | cgcgcacgc | gcgttgc | cggccact | ggcgttgc |
| 30421 | cgggcgcaga | cggcgcttgc | gctggcgcc | ggcaactcg | tggcg | ggaggcgcc |
| 30481 | gggctgcacg | agggtggcc | tttctgc | cgctggac | cgatcg | ggccctcg |
| 30541 | cgcgcgtcg | acgac | cgcgc | gacgtc | cgccgtc | ggggctccgc |
| 30601 | ggcgtctggg | acgagg | tcc | cgcgt | ccccggggc | ggcgcgcac |
| 30661 | ggcgcaac | cggcg | cgcgc | gtgctgc | tgttgg | ctacccgg |
| 30721 | gttggggag | acggggc | ccggc | ctggac | ggcgg | ggccactgg |
| 30781 | gcggcgtag | accgc | gctcg | cgcgc | cgggc | ggccgcgc |
| 30841 | tctggcg | ccgcaaa | ggcgc | ccgtgg | cgacggaa | cctgcgc |
| 30901 | gaatgcgt | gcgttgc | cagtgc | ccgc | gttgg | ggcgcggcg |
| 30961 | tgcggcg | ggccttgc | taa | tgcg | ggcgc | gtacccctgt |
| 31021 | ggagcagc | agcgg | ccca | tgcc | ggcgc | caacgcgc |
| 31081 | cgacgtcg | gtcg | ttttc | caacc | cgccgc | ttggggccgg |
| 31141 | cagcggt | gcat | ggt | gtcg | cggtgc | tcgcggcg |
| 31201 | cgtgcacgc | gcgc | ccgac | cgacgg | ctcg | gtcg |
| 31261 | ggcgcg | agcgg | ggcc | gtgct | ggcgc | caaaccgc |
| 31321 | caccgacc | gcgg | ggagc | ctgct | gtgc | tgtatggg |
| 31381 | gtgcggctt | tacac | cgcc | cgcc | acc | cagcgcgc |
| 31441 | attc | | | | | |

LOCUS (LOC): HSMULHOM GenBank (R)
 GenBank ACC. NO. (GBN): L10283
 GenBank VERSION (VER): L10283.1 GI:388703
 CAS REGISTRY NO. (RN): 151210-86-5
 SEQUENCE LENGTH (SQL): 8433
 MOLECULE TYPE (CI): DNA; linear
 DIVISION CODE (CI): Viruses
 DATE (DATE): 29 Oct 1993
 DEFINITION (DEF): Gallid herpesvirus type 1 homologous sequence (UL50, UL49.5, UL49, UL48, UL47, UL46, and UL45) genes, complete cds.
 SOURCE: Gallid herpesvirus type 1 (strain GA) DNA.
 ORGANISM (ORGN): Gallid herpesvirus 1
 Viruses; dsDNA viruses, no RNA stage; Herpesviridae; Alphaherpesvirinae; Infectious laryngotracheitis-like viruses
 NUCLEIC ACID COUNT (NA): 2454 a 1751 c 1825 g 2403 t
 REFERENCE:
 AUTHOR (AU): Yanagida,N.; Yoshida,S.; Nazerian,K.; Lee,L.F.
 TITLE (TI): Nucleotide and predicted amino acid sequences of Marek's disease virus homologues of herpes simplex virus major tegument proteins
 JOURNAL (SO): J. Gen. Virol., 74 (Pt 9), 1837-1845 (***1993***)
 OTHER SOURCE (OS): CA 120:3013

FEATURES (FEAT):

| Feature Key | Location | Qualifier |
|-------------|--|--|
| source | 1..8433 | /organism="Gallid herpesvirus 1" /strain="GA" /db-xref="taxon:10386" /gene="UL50" /gene="UL50" /function="possible UTPase" /note="UL50h; MDV homologue of UL50 of HSV-1; putative" /codon-start=1 /protein-id="AAA03146.1" /db-xref="GI:388704" /translation="MNVHESHPRRDRLDENITLE ALTVPWRLQFRVDEALYAVNPNGW TCYIEERDQRCLRVNNCVISLLKSDLKRKYQTC TLNIGIRVAVPQNYVVILAKLTD" |
| gene CDS | complement(<3..305) complement(<3..305) | /gene="UL49.5" /gene="UL49.5" /note="hydrophobic protein; UL49.5h; MDV homologue of UL49.5 of HSV-1" /codon-start=1 /protein-id="AAA03147.1" /db-xref="GI:388705" /translation="MGLMDIHNACSLVIGVAIL IATSQATFVDWGSSITSMGDFWES TCSAVGVSIASFSSGFSVLFYMLVAVISALLGS YHACFRLFTADMFKEEW" |
| gene CDS | 285..572 285..572 | /gene="UL49" /gene="UL49" /note="UL49h; MDV homologue of UL49 of HSV-1 (VP22)" /codon-start=1 /protein-id="AAA03148.1" /db-xref="GI:388706" /translation="MGDSERRKSERRRSLGYPSA YDDVSTPARRPSTRTQRNLNQDDL SKHGPFTDHPTQKHSAKAVSEDVSSTTRGGFTN KPRTKPGVRAVQSNKFAFSTAPSS ASSTWRSNTVAFNQRMFCGAVATVAQYHAYQGAL ALWRQDPPRTNEELDAFLSRAVIK ITIQEGPNLMGEAETCARKLLEESGLSQGNENVK SKSERTTKSERTRRGGEIEIKSPD PGSHRTHNPRTPATSRRHHSSARGYRSSDSE" |
| gene CDS | 628..634 718..1467 718..1467 | /gene="UL48" /gene="UL48" /note="UL48h; MDV homologue of |
| gene CDS | 1575..2858 1575..2858 | |

UL48 of HSV-1 (VP16)"
 /codon-start=1
 /protein-id="AAA03149.1"
 /db-xref="GI:388707"
 /translation="MEANMSFENDYYSPIQLFAE
 IEAYANTMDKSPDLDILRTIEEFD
 ETLLSEIEVRTQSIPSPLVAPSVTKMSLPSPSPA
 PPNSLYTRLLHELDFVEGPSILAR
 LEKINVDFSCFPHNKHLYEHAKILSVSPSEVLE
 ELSKNTWTYTALNLNEHGEMLPM
 PPTTKADLPSYVDDIQNFYLGELEAREKSYATMF
 YGYCRALAEYIRQSAIKDLRDARV
 EDKNIGACSKARQYIAERYYREAARFAKLLYVHL
 YLSTTRDVSQRLEASQMGRQNIFV
 YLKCEWLQERHFHCLFQPVIFNHGVVIVEGRVLT
 APELRAQNYIRSEFGLPLIRCKLV
 EEPDMPLISPPPFSGDAPRASVYLLQCIRSKLEV
 YSLSHPPNPQLHVKEHVHVQKLE
 SPPNYGTTVEALLMDSSDRNSISPGDPVATTIST
 L"
 /note="terminator for UL49.5h,
 UL49h, and UL48h (2.5 kb
 transcript)"

 terminator
 gene
 CDS
 2941..2946
 2970..2976
 3097..5523
 3097..5523

 /gene="UL47"
 /gene="UL47"
 /note="UL47h; MDV homologue of
 UL47 of HSV-1 (VP13/14)"
 /codon-start=1
 /protein-id="AAA03150.1"
 /db-xref="GI:388708"
 /translation="MQMPSMHRYGHPGQNQRREN
 QSIRNYLSTRSGSRNRISRSPHNM
 ASVYTRAPAIAYDDDTYDTLEESEDNGFVKTIPN
 EEQFDNSRGRDRTRSGRSNGHSFL
 GYLRDTFTTERQPSGRRGSDTSRDMINASLKSRAR
 SRRRSSSSRRRHNASHMHFRGGS
 RRSATGSQNLINHDRHRRRISQSSLGSSREGEYNH
 ASRSSRVRRRHRSSRRRGPRAGG
 HGDSFTSITPSGSAEHPISDIDQKRLRKNSDTSS
 RGTRESPIDDSFGEDNYRLVSRRN
 ATSIYTPPSALYTRTESLKTYKRTTGDSKGTPA
 LASFLEHKTLSDAVINHIPLLRL
 ESVPRSEAIREREDELLYMSAKTFKYVSHWYSNSRP
 DYANGKMYTSPPPENALAWKRTAK
 QAHALILHLGRDSLRSVMSLRELNQSNALFLL
 NSCLKIAICIHKNKMHKYGNVKIL
 STMPHVRKGDAQIFENSTIHTMRDPMASAARASY
 GSLAYWPELRCALGSENKRVRYA
 IVAMLQAEIYLLTRISSQRVSMNKSELRILSSCI
 TMECVAACIAVQFLYTSWLQILYS
 SKINREYIWLKTASERSKKLPMASTDLLYAEGAC
 LGRLESSLYGTEGTPLGRTLVEAY
 LATRSAFTELIYEFQNSSDLFLEKQNVKLGEKLT
 AAVIAATVVLQRLLGHLNIIIAQM
 VIGSVYHKKDWDWSETFKMYQYLSYVCKSLYRP
 VTIDEYINDRDDTMEYLTLFARG
 DPPTGMASVIYEDEKSEELESLKLVPPPINYDIL
 GNLVPLRNAIEDASDVFKEKRAVE
 TARREPQRAN"
 /gene="UL46"
 /gene="UL46"
 /note="UL46h; MDV homologue of
 UL46 of HSV-1"
 /codon-start=1
 /protein-id="AAA03151.1"
 /db-xref="GI:388709"
 /translation="MKRLSSSEQSLELFDRDSPQ
 EYSCILPNELTVSASALRAEEDSL
 IEKLPSGLTLGIRESVLCETLSNKVPESVIVHLA
 LGDVRGEYISLYSANVKRRLKRAA
 LTPAVVKDYYTDSYQRYVCKRRRIPCVDLPGTRE
 PARSTVALLFYPAIQRNPLTQKPF
 RLQKDKNMFVKCWAEIWDALNFIQKYVYYMRPDE
 ITTPSLDTSARLELLFGYVKTLYM
 WAMWLMDDLDTRIVSNKFGTRVPISIDNIFSNLT

| | | |
|---|--|--|
| polyA-signal | 7465..7470 | EVMGSLSSDKWMSTALLCRSIEHL LSSLIHSSLWTCCQWRETKHGEMLRPIVSIVAL VSLLHHHCQYIINITFNGYARWLE GGLGNPMLRSAIRQQKRFEHYLGGLFPSIRPTAW GELEFSIRAWFELALAKSMVIHGS LLKKSIIVSNNVLEPLCKPRHTQIGERHDTRFTRS TSMPSSSGHIHSTLQNNQQAIVPE CSSGQLSSIATALWSADELQNDYVEMGGVLCPA PQPADSITPNSSQTNNGTASDGSP TRVTDASLDPTEVESTTVAETPPVTAVESVYV CRETARNKSPSSKVERILRRLRVA TD" /note="terminator for UL49.5h, UL49h, UL48h, UL47h, and UL46h (7.8, 4.6, and 2.0 kb transcripts)" |
| polyA-signal terminator gene CDS | complement(7491..7496) 7500..7507 complement(7504..8139) complement(7504..8139) | /note="terminator for UL45h" /note="terminator for UL45h" /gene="UL45" /gene="UL45" /note="UL45h; MDV homologue of UL45 of HSV-1" /codon-start=1 /protein-id="AAA03152.1" /db-xref="GI:388710" /translation="MMSPTPEDDRDLVVVRGRLR MMDNGAEHDRERRSYTAWPHLCCG CTIGIILTMFVIATLLLASLFAFSYMSLESGTC PKEWIGLGYSCMRVAGNNATELEA LDMCAQHNSKLVDFTNAKTLVEAIVPFGSTNASF GNIFRLRDSRSTCILPTIGGPISV DCPRTCSVVCQRPRPLSTAASIIRDARIYLRLER RDYYEVYSSILSNAIMK" |

SEQUENCE (SEQ):

```

1 ggatccgtta actttgccaa aatgaccacg taattctgag gaacggcaac tcgtattccg
 61 atattcaatg tacacgtttg atatttgcgc tttaaatccg atttcagtaa cgagatcaca
121 caattgttgg taacgcgaag acaacgctga tcacgcctt ctatataaca ggtccaaaccg
181 ttgggttta ctgcataataa cgcttcatcg acacggaaatt gcagacgcca gggactgtt
241 agtgcttcca acgttatataa ctccaaatca cgatctcgac gaggatggga ctcatggaca
301 ttccataatgc agtctgttagt tttagttatcg gcgttgcata ttgtattgcc acttcgcaag
361 cgacgtttgt cgatggggaa agttcaatca caagtatggg agattttgg gagtctacgt
421 gttctgcagt aggcgtgtca atagcttttt catctgggtt ttctgtgtcg ttttatatgg
481 gtctggggc ggtaatctcc gccccttttag cgggttcgta tcacgcatgc tttcgactat
541 tcaccgcaga tatgtttaaa gaggagtggtt aaattatgtg ggcgtggaca aatctcttat
601 ctcttcataa gagatttgtt gacttgaac caatattcat atgttggaga cgccacacgg
661 tacaatagaa ggtgcacttg ttcatatctt actgttttaat attatatctt agttatcatg
721 ggggattctg aaaggcggaa atcggAACGG cgtcgttccc ttggatatcc ctctgcataat
781 gatgacgtct cgattcctgc tcgcagacca tcaacacgta ctacgcggaa tttaaaccag
841 gatgatttgtt caaaacatgg accatttacc gaccatccaa cacaAAAACA taaatcggcg
901 aaagccgtat cggaaagacgt ttctgttacc accccgggtt gctttacaaa caaacccgt
961 accaagcccg gggtcagacg tgtacaaagt aataaattcg ctttcagttac ggctcccttca
1021 tcagccatcta gcacttggag atcaaataca gtggcattta atacgcgtat gttttcggaa
1081 gcggttgc当地 ctgtggctca atatcagcga taccaggcg cgctcgccct ttggcgtcaa
1141 gatcctccgc gaacaaatga agaatttagat gcatttctt ccagagctgt cattaaaatt
1201 accattcaag agggtccaaa ttgtatgggg gaagccggaa cctgtgcccgg caaactattg
1261 gaagagtctg gattatccca ggggaacgg aacgtaaatgtt ccaaatactga acgtacaacc
1321 aaatctgaac gtacaagacg cggcggtgaa attgaatca aatcgccaga tccggatct
1381 catcgatcac ataaccctcg cactcccgca acttcgcgtc gccatcattt atccggccgc
1441 ggtatctgt gcagtgtatcg cgaataatgtt aacataggaa cagccctact actgcaagta
1501 agtcgtcttt tatagacatc cgaattaaaaa actagtacat atatatctta tctactcatt
1561 attgtatagt gtgaatggag gcaaatatgaa gttttggaaa cgttactac agtccatcc
1621 aattattcgc tgaatttggag gcgtatgcga atactatgaa taatccccg gatcttgata
1681 tcctacgaac aatttggaaa ttgtatggaa cgcttcttc tgaatttggaa gtcagaaccc
1741 aatctattcc atcgccctcg ttgttccgt ctgttactaa aatgtcactt ccatccccat
1801 ctccagctcc tcccaattct ctctacacta gactgttgc当地 tgagttggat ttgtcgaag
1861 gcccgtctat attagcacgt ctggaaaaaa taaatgttgc当地 tctattctca tgttccctc
1921 ataataaaca ctttatatgaa catgcaaaaaa ttttatctgt atctccctcg gaagtattgg
1981 aagagttgtc gaagaataca tggacgtata cggctttaaa tttaaatgaa catggagaga
2041 tggccctgccc catgcctccc acaacaaagg ccgatttacc ttctttatgtt gacgacatac
2101 aaaacttcta ttggggagaa tttagaagcaa gggagaaaatc atatgttact atgtttatg
2161 gatactgtcg tgctctggca gagttatattt gacagtccgc gattaagat ctgcggacg
2221 ctcgagtc当地 agataaaaaat ttgggtgcgt ttagtaaggc acgacaatac atcgcggaaa
2281 ggttattatcg agaagcggca aggttgc当地 agctcttata tttttacttac taccttctt
2341 ccacgcggaa tttatcacag cgactcgaag catctcaaattt gggacgacaa aatatatttgc
2401 tatatttggaa atgcgaatgg ttacaagaaa gacacttca ttgtttattt caacctgtaa
2461 ttttaacca tggcgttagtt attgtcgaag ggcgtttt gactgctcct gaactccggg

```

2521 ctcagaatta tatacggtcc gagttcggtc ttcccttaat acgatgtaaa ttagtagaaag
2581 agcctgacat gccgttgcgc tcggcccccac cggtttcagg ttagtgcctt cgggcatcg
2641 tatatttttgc gcaagtgtatt agatcaaagt tggaaagtata ttctctatca caccggccct
2701 acccgcaatt gcatgtgcatt aaggaacatg tacaatgttca aaagctagaa tcaccgcca
2761 actatggAAC tactgtcgaa gcattgttgc tggactcttca agacagaaat tcaatttccc
2821 ctgggtatcc tggtggccact accatcgat ctttataagg agtattttgt ctatttagtat
2881 gatggtgagt tggcagaacg aaactatact taaatgatata tatacgtaaa tgtgacggtt
2941 aataaaacgaa tttgtcgat tcgtttgtc ttgtttctc acgtccccatc aatgatgtaa
3001 tattattgtat gcaattacac ttccggccgtt agatcaatac attataaaaac ggcgtagtt
3061 tgataaacgt atgctggtag cacattccac cgaagaatgc aaatgccttc tatgcacatgg
3121 tatggacatc ctggtcaaaa tcaacgacgg gaaaaccaat caatcgaaaa ttacttgtcg
3181 actagaagtgc gatcacgca tcgtatatcg cgaaggtccgc ataataatggc gagtgtgtat
3241 acaagagcac cggcgatgtc ctatgtatgc gatacatacg atacgctaga ggagagcgag
3301 gataatgggt ttgtaaaaac cattcctaat gaggacaat ttgacaattc acggggggcg
3361 gaccgtacac gatctggcag aagaatggg catagtttc taggttatct ccgagatact
3421 ttcaactgaga ggcacaccctt gggcggtcgc ggttagtata catctgtga tatgattat
3481 gcatcattaa aatcgagacg gaggtctaga agacgctcgat catctagacg acgcccattcg
3541 aatgccagca tgcatatgc tttcggtgg gttccagac gatctgcac gggtttcaa
3601 aatttgataa atcacgatag acatagaaga atatcccaat ctatgtttagg atcgtctaga
3661 gaaggagaat taaatcatgc atcacgatca agccgtgttga aaggcgcca ccgttaggtca
3721 tcacaaaggc gaggaccttgc ggcgggtgtt cacggagatt cttttacatc cattactccc
3781 agtggaaagtgc cagaacatcc aatatccgtt atcgatcaaa aacggttacg aaaaaactca
3841 gatacatcgat ctcggggcac tcgtgaatcc cccatagatg atagttttgg agaagacaat
3901 taccgatttag ttctcgcaaa tagggccact tcaatttata caacccccc tgccttata
3961 actagaacag agtcgtctaa aacctataag cgttaccatg gtgatagtaa aggtacgagt
4021 ccggcttgg cctccttct cgagcataaa acacttagcg cagatgtcat caaccacatt
4081 ccattattgc gaatgttgc atctgtgccc agatccgagg ctatacgtga agatgaatta
4141 ttgtatatgt ctgcaaaaac ttcaatataat gtgtcacatt ggtattccaa cagccggcca
4201 gattatgcca atggaaagat gtatacttcc ccccccgtt agaatgctt cgcggggaaa
4261 cggaccgcga aacaggccca tgctcttatt ctccatttag gcagagattt ctttagaag
4321 tctgtatgtt cattgcgtga gttgaatcaa agcaatgc ttttattttt acttaattcc
4381 tggtaaaaaaa tagcaatttgc tatacataaa aataaaatgc ataaatatgg aatgtaaaa
4441 atattatcca caatgcccaca cgttcgaaaa ggtgtatgtc aaatattcga aatagtact
4501 atacatacaa tgcgagaccc tatggcttc gctgcacgag ctccctatgg atcgcttgc
4561 tattggccag agttcgcgt tgcatatggg tctgagaaca aacgaattgt acgatatgcc
4621 attgtggcta tggtgcgaagc agaaatataat ctacttacaa ggtatcttcc ccaaagagt
4681 tcaatgaata agagtgaact tagaatttttgc tcctcggtca ttacgatggc atgtgtggca
4741 gcatgtatag ctgtgcatttgc tctatataact tcctttaggc aaataacttta cagttctaaa
4801 atcaatcgat aatacatatg gctggaaaact gccagcgaga gaagttttttt gttaccatg
4861 gcaagtacgg atctcccttgc tgcagagggg gcctgccttggggtaga gtcatctcg
4921 tatggtacag agggtacacc tctaggggaga acatgttag aacgtatct tgccacaaaa
4981 tctgcatttttgc cggagttaat atatgtatgc caatcaaca gtgatttttgc tctagagaag
5041 cagaatgtca agctgggaga aaaatttacc gctggcgttgc ttgtgcac tgggtcttta
5101 cagcgcttgc tcggccattt aataatcattt atcgcgcaga tgggtattttt atctgtat
5161 cacaaaaaaag acgtggatgt ttgttcagag acattcaaga tgggtatataa tctatcgat
5221 gtctgtaaaaaa gtttatataatg accagtgcattt attgatgaat acataaatga ccgtgatgat
5281 actatggagt attttacact tgaatttgcgc gaggcgatc cacctactgg catggcatca
5341 gtgattttatg aagatggaaa aagtgaagaa ctagaatctt tggaaacttgcg acccccgcc
5401 attaattatg acattctagg taattttatgc ctttacggaa atgcgataga agatgcgagt
5461 gatgtgatatt tcgagaaaaa agccgtcgaa accggccgcgtt gtagggccaca acgggcaat
5521 tgacgttaggg aagaggccgg gacttttttactt cggatgttag aataatggca tttttagtgc
5581 gtacatgtttt aaaaaccggca ctcttgcagc atcctgtact atatttcgtt tttctctgt
5641 gtgtgtccat ccatatgggt tataatgaag cggctcagct ctctgtaca gtcgttggaa
5701 ctgtttgacc gagattcgcc acaagaatatt tcatgtatatt taccacaaatc attaactgt
5761 tctgcgtctg cattaagacg tcttgcggac agccttataatg agaagttgc atccgggttgc
5821 acattgggttgc taagggatc ggtattttgtt gaaactctttt ccaataaagggt tccagaatct
5881 gttattttgtt atcttgcgtt gggagatgtt agaggagatgtt atatatccctt atacagcgca
5941 aatgtgaaac gcagatttgc acggccggcg ttgacacccgtt cgggtgtaaa agactactac
6001 acagactcgat atcagcgatc tgcgttgcattt cggccggcgta taccttgcgtt tgatctcccg
6061 ggaactcgat aacctgcgcg atccaccgtt gcgttgcattt ttatccgcg tatacaacga
6121 aatcccttaa cacaaaaaacc atttccggctt caaaaagata acaaaatgtt cgtcaaatgc
6181 tggccggaaa tatgggtatgc tttaaattttt attcgtatgc tgcgttgcatttgc tgcgttgc
6241 gacggaaataa caacacccatg tctcgatact tccgcgttgc tggagtttttatttgc
6301 gtgaagacac tgcgtatgc ggcattgtgg ttaatggact tgcgtatgc tgcgttgcatttgc
6361 tctaacaat tcggcaccatg cgtacatctt cggatgttgc tggatgttgc tgcgttgcatttgc
6421 gagttatgg ttgcgttgc tgcgtatgc ttgttgcatttgc tggatgttgc tgcgttgcatttgc
6481 atagaacacc ttttgtcttcc acttataccat attagtttgc tggatgttgc tgcgttgcatttgc
6541 cgcggaaacca aacatggaga aatgtgcgtt cctatgttgc tggatgttgc tgcgttgcatttgc
6601 ctctgcacc atcactgtca atatattatc aatattactt ttaatggata tgcgttgcatttgc
6661 ttggagggggg gtttgggttgc tcctatgttgc agatcgccaa ttcgacaaca aaaaacgggtt
6721 gaacatttttttgc tggaggact tttccatcc ttagccaaatgc tggatgttgc tgcgttgcatttgc
6781 ttttagcatca gagcatgttgc tgaacttgcgc ttagccaaatgc tggatgttgc tgcgttgcatttgc
6841 ttactcaaaa agtccatgttgc gagaataat gtcgttgc tggatgttgc tgcgttgcatttgc
6901 actcaaatttgc gagaaggca tgatacgagg tttacacgttgc tggatgttgc tgcgttgcatttgc
6961 tcgggacata tacacgtac attacagaat aatcaacaatgc cgattgttcc tggatgttgc tgcgttgcatttgc
7021 tcgggacaac tatcttcaat cgctaccgttgc tggatgttgc tggatgttgc tgcgttgcatttgc

| | | | | | | |
|------|--------------|--------------|--------------|--------------|---------------|--------------|
| 7081 | tacgtggaaa | tgaaagggtgg | agttttatgt | ccagccccac | agccagctga | ctcgatcact |
| 7141 | ccaaattcca | gtcaaaacaaa | taatgggaca | gcttcagacg | gttctccaa | gagagtgacc |
| 7201 | gatgcgtccc | tcgatccaac | cgaagttgaa | tcatcaacta | cagttagtga | gacaccgcct |
| 7261 | gttacagttt | ccgtcgaatc | ggtatatgtt | tgcagagaaa | ccgcacgaaa | caaatctcca |
| 7321 | tcatccaaag | tggaaacgaat | attgcgttagg | tttaggggtgg | ctaccgattt | atactatgtt |
| 7381 | caaacatata | tgttttattc | tttagcgtaa | cgatttgtcc | caaacatgtt | taccctttca |
| 7441 | cctttcatgc | tcgatttattt | aagaataaaa | gaaccgcttt | aagaataatgt | tttatttttg |
| 7501 | tgttttattt | ataattgcgt | tcgagagaat | ggaactgtaa | acttcgtatgt | aatcgcgtcg |
| 7561 | ttctaaacgaa | agatagatac | gagcatctt | gattatagaa | gcccgcgtac | ttaatggtcg |
| 7621 | ggggcggttgg | cataacaacgc | tgcgtgtcct | tggacaatcg | accgatatacg | gaccctccaaat |
| 7681 | gggtgggtatgt | atacaggttag | atctactgtc | ccgtagtctt | aatatatttc | caaaggaaagc |
| 7741 | attcgtggag | ccgaatggga | caattgttc | aaccatgtt | tttgcgttag | taaaatctac |
| 7801 | gagtttactt | ttatgttttttt | cacacatatac | taatgcctcg | agtttctgtatgt | cattgtttcc |
| 7861 | agccacgcgc | atgcaacttgt | accctaattcc | aatccattcc | tttagggcatg | ttcccgactc |
| 7921 | tagagacatgt | tacgagaatgt | caaacaatgtt | tgctataataat | aacgttgtcg | cgatgacgaa |
| 7981 | catagttaaat | ataattccga | tggtacatcc | acaacacaaa | tggggccatg | cggtgtatgc |
| 8041 | tcgcccgttct | cgatcatgtt | cggcaccgtt | atccatcatt | cggagacgtc | cacgtactac |
| 8101 | cactaaatcg | cgatcgctt | cggtgttagg | cgacatcatt | tttatacgt | catgtctatgt |
| 8161 | gagtacattt | gtgggttatat | ttctgtgttttt | ctatatacgtt | tcatattttt | cgattgtacg |
| 8221 | gtatgcgtgt | tcgttattcgat | tttggtaaaat | tgttatcgat | gtatgttgcg | gtgggggcgc |
| 8281 | gatccgtgca | acttttttgtt | cataggttgg | gaaactttcg | atacttattt | ttttccatatgt |
| 8341 | acccgttaagt | ctaattgcact | atatcgaaag | gtactgtatgt | agtgtggctg | gatgcaatgtt |
| 8401 | caaaaactaat | attcatagaa | acgatatgtt | tttcc | | |

L7 ANSWER 187 OF 195 GENBANK.RTM. COPYRIGHT 2004 on STN

LOCUS (LOC): ADECP GenBank (R)
 GenBank ACC. NO. (GBN): M81775 M81776 M81777
 GenBank VERSION (VER): M81775.1 GI:209738
 CAS REGISTRY NO. (RN): 140600-01-7
 SEQUENCE LENGTH (SQL): 1096
 MOLECULE TYPE (CI): ss; RNA; linear
 DIVISION CODE (CI): Viruses
 DATE (DATE): 27 Apr 1993
 DEFINITION (DEF): Andean potato mottle virus coat protein (***VP22***
) mRNA, 3' end.
 SOURCE: Andean potato mottle virus cDNA to genomic RNA.
 ORGANISM (ORGN): Andean potato mottle virus
 Viruses; ssRNA positive-strand viruses, no DNA stage;
 Comoviridae; Comovirus
 NUCLEIC ACID COUNT (NA): 304 a 161 c 240 g 391 t
 REFERENCE:
 AUTHOR (AU): Shindo,N.; Krengiel,R.; Brioso,P.S.; Vicente,A.C.;
 Weyne,M.; de Oliveira,D.E.; Timmerman,B.
 TITLE (TI): Complete nucleotide sequence of the 22 kDa coat protein
 of Andean potato mottle virus
 JOURNAL (SO): Plant Mol. Biol., 19 (3), 505-507 (***1992***)
 OTHER SOURCE (OS): CA 118:249964

FEATURES (FEAT):

| Feature Key | Location | Qualifier |
|-------------|----------|---|
| source | 1..1096 | /organism="Andean potato mottle virus" /db-xref="taxon:12259" |
| gene | 1..594 | /gene="VP22" |
| CDS | 1..594 | /partial /gene="VP22" /codon-start=1 /product="coat protein" /protein-id="AAA42420.1" /db-xref="GI:209739" /translation="FCSPCINVWSEFCALDIPVVD DTTKVNFQAQYSLDLVNPNTVSANAS GRNWRFVFLIPSPMVYLLQTSWDKRGKLHFKLKIL GKSNVKRSEWSSTSRIDVRRAPGT EYLNAITVFTAEPHADEINFEIEICGPNNGFEMW NADFGNQLSWMANVVIGNPDQAGI HQWYVRPGENFEVAGNRMVQPLALSGEDGTGMLP ILK" |

SEQUENCE (SEQ):

```
 1 ttttgtatc catgtataaa tgtttgaggt gagttttgtg cattagatat tcctgttgtg  
 61 gacacaacta aggttaattt tgcccaatat tctctggatc ttgtaatcc aacagtttct  
121 gcaaatgcct ctggcgtaa ttggagggtt gttttataac cttctcccat ggtgtattta  
181 cttcaaactt cagactggaa aagaggaaag ttccatttt aqttaaaat actggggaaa
```

241 tccaatgtta aacgatctga atggagtagc acaagcagga tagatgtgag aagagcacct
301 ggtacagagt atttaaatgc tattcaactgtt ttcactgctg agccacatgc agatgagata
361 aattttgaaa tagaaatttg tggccaaac aacggatttg agatgtggaa tgctgatttt
421 ggaaccat tgcattggat ggcaaattgtt gttattggaa atcctgatca agcgggtata
481 catcaatggt atgttaggcc aggagaaaat tttgaggttg cagggaaatag gatggttcaa
541 cctctagcgc tttctgggg ggtatgtact ggtatgttc caatactaaa gtagccaata
601 aatttggatt tgcgtgtt cctctgaga aacgctctgg tgcattca ccaccttagga
661 gctaggactc tgggtttaa tgcaaattgtt ttaattttg ttatTTaaat ggttgcttt
721 aatttaagta gtcgtaatcg tttatctgga attttaacaa gttttacgt tactgagctt
781 ctgccttgc aagaacactt gtgtaaattt gtagttata aactctagtt tgtatTTctg
841 gattgtgcg tggccttct gagaacgct ctgggtgtca ttcaccacct aggaggtagg
901 actctgggtt tcaatgcaaa ctgtttttaa ttttgtact taaatagttt gcttttagttc
961 aagtaattat gatcgttat ttgaatttc ataagttctt gcgttctga gcttctgccc
1021 ttgttagaac acttgtgtaa attttagtt tacaaacttt ggtttgcatt tgtgtttaa
1081 aaaaaaaaaa aaaaaa

L7 ANSWER 188 OF 195 PHARMAML COPYRIGHT 2004 MARKETLETTER on STN
AN 1646911 PHARMAML
TI Cantab making"significant progress"
SO Marketletter May 20, 1999
DT Newsletter
WC 221

L7 ANSWER 189 OF 195 PHARMAML COPYRIGHT 2004 MARKETLETTER on STN
AN 1644751 PHARMAML
TI Cantab On Track To Being A Fully Integrated Company
SO Marketletter December 3, 1998
DT Newsletter
WC 1651

L7 ANSWER 190 OF 195 PHARMAML COPYRIGHT 2004 MARKETLETTER on STN
AN 1644315 PHARMAML
TI UK Biotech Firms Back In Vogue with Investors?
SO Marketletter November 5, 1998
DT Newsletter
WC 1448

L7 ANSWER 191 OF 195 PHARMAML COPYRIGHT 2004 MARKETLETTER on STN
AN 1641854 PHARMAML
TI Cantab Reports Solid Progress During 1st Qtr
SO Marketletter May 28, 1998
DT Newsletter
WC 237

L7 ANSWER 192 OF 195 PHARMAML COPYRIGHT 2004 MARKETLETTER on STN
AN 1641682 PHARMAML
TI Stock Commentary Europe
SO Marketletter May 14, 1998
DT Newsletter
WC 337

L7 ANSWER 193 OF 195 PHARMAML COPYRIGHT 2004 MARKETLETTER on STN
AN 1641505 PHARMAML
TI Phogen Signs First Commercial Deal
SO Marketletter April 30, 1998
DT Newsletter
WC 59

L7 ANSWER 194 OF 195 PHARMAML COPYRIGHT 2004 MARKETLETTER on STN
AN 1636166 PHARMAML
TI Cantab And Marie Curie Cancer Care Form New Biotech Company; Cantab
Shares
SO Marketletter March 10, 1997
DT Newsletter
WC 55

L7 ANSWER 195 OF 195 PHARMAML COPYRIGHT 2004 MARKETLETTER on STN
AN 1635838 PHARMAML
TI New Discovery At Marie Curie Research Institute
SO Marketletter February 10, 1997
DT Newsletter
WC 57